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THE PUBLIC AND PRIVATE BUSINESS PROFILE
OF CACHE COUNTY

by

Reed E. Williams

A thesis submitted in partial fulfillment
of the requirements for the degree

of

MASTER OF SCIENCE

in

Agricultural Economics

UTAH STATE UNIVERSITY
Logan, Utah

1970

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Reed E. Williams
Reed E. Williams

TABLE OF CONTENTS

	Page
INTRODUCTION	1
Objectives of the Study	2
INPUT-OUTPUT DEVELOPMENT	4
Discovery of the Input-Output Method	4
Theoretical Discussion	6
Basic structure	6
Basic equations for the Leontief model	8
Example	9
Assumptions	14
Applicability	15
Uses and advantages of input-output models	16
Cache County Input-Output Efforts	19
CACHE COUNTY MODELS	21
The Transaction Tables	22
Direct Coefficients and Multipliers	23
One Percent Change in Final Demand One Sector at a Time	24
Updating the Flow Chart to 1967	25
ECONOMIC IMPACT OF UTAH STATE UNIVERSITY ON CACHE COUNTY	29
SUMMARY	38
CONCLUSIONS	40
LITERATURE CITED	42
APPENDIXES	44
Appendix A. Makeup of Cache County Input-Output Models	45
Appendix B. 1962 Input-Output Tables	50
Appendix C. 1967 Input-Output Tables	86
VITA	122

LIST OF TABLES

Table	Page
1. Input-output transaction table	7
2. Example transaction table (in dollars)	9
3. Example direct coefficient table or A matrix	10
4. Example I-A matrix	10
5. Example determinant calculations	11
6. Example co-factor matrix and calculations	11
7. Example positive co-factor matrix	12
8. Example adjoint matrix and transposing	12
9. Example adjoint matrix multiplied by final demand for output check	13
10. Output changes with Utah State University and students removed from final demand, 1967	30
11. Sectors with highest dollar loss in business income, 1967	31
12. Sectors with largest percent decrease in business income with percentages as percent of 1967 production .	31
13. Output changes with student population increase of 17 percent in final demand, 1967	33
14. Sectors with highest dollar increase in business in- come with student population increased 17 percent, 1967 .	34
15. Sectors with highest percent increase in business in- come with student population increased 17 percent, 1967 .	34
16. Output changes with student population increase of 70 percent and USU increase of 49 percent in final demand, projected to 1980	35
17. Sectors with highest dollar increase in business income projected to 1980	36
18. Sectors with highest percent increase in business income projected to 1980	36

LIST OF TABLES (Continued)

Table	Page
19. Sector makeup of input-output matrix	46
20. Interindustry flow of goods and services, Cache County, Utah, 1962 (thousands of dollars)	51
21. Direct requirements per dollar of output, Cache County, 1962	61
22. Direct and indirect trade coefficients, Cache County, 1962	69
23. Final demand and total output with estimated output changes for a one percent increase in final demand for each sector, 1962 (thousands of dollars)	77
24. Interindustry flow of goods and services, Cache County, Utah, 1967 (thousands of dollars)	87
25. Direct requirements per dollar of output, Cache County, 1967	97
26. Direct and indirect trade coefficients, Cache County, 1967	105
27. Final demand and total output with estimated output changes for a one percent increase in final demand for each sector, 1967 (thousands of dollars)	113

ABSTRACT

THE PUBLIC AND PRIVATE BUSINESS PROFILE

OF CACHE COUNTY

by

Reed E. Williams, Master of Science

Utah State University, 1970

Major Professor: Dr. N. Keith Roberts

Department: Agricultural Economics

Economic development that increases per capita income and creates additional jobs through expansion of present businesses and/or introduction of new businesses and business income is the goal of planners in Cache, Rich, and Box Elder Counties. To help with this goal a Northern Utah study group was organized to gather data on quality, quantity, and use of human, social, physical, and economic resources. This thesis is part of the main study and only includes Cache County.

Input-output models are effective predicting tools. These tools are used in this analysis. To predict different output changes in the economy, final demand was adjusted four basic ways in the 1967 model. University and student spending were removed from final demand. For projections to 1980 final demand was increased by expanding university and student spending. Student spending was increased with university and other spending held constant. Another change was calculated to predict potential influence by changing final demand in each sector one percent one sector at a time.

Results indicate that for economic development, input-output analysis can be used. If demand could be increased, Utah State University

could be an effective area to develop since it affects all 32 sectors producing in the county. No other industry or sector affects as many other sectors. In the model, if student population were increased 17 percent, business income in 1967 would have been increased by \$2,162,000. If the university and the students were removed from the model in 1967, business income would have decreased by an amount greater than \$15,000,000. If the university spending increased 49 percent and student population increased 70 percent (projections to 1980), business income would increase at least \$10,000,000.

(129 pages)

INTRODUCTION

Planners have always been interested in growth and economic development. To increase development in Northern Utah a group was organized in 1968 to gather data and analyze development potential in Cache, Rich, and Box Elder Counties. The group was composed of staff members of Utah State University. Data were collected on quality, quantity, and the use of human, social, physical, and economic resources. The study gives planners more information as to the possible ways the area can be developed. This thesis is only part of the main study and is limited to Cache County.

Once planners have the information and data available to analyze, they need methods to evaluate and predict the results of expanding growth and development in one sector versus another within the study area. The goals of the planners would determine the method chosen. Some possible goals might be to increase growth and development the most per dollar of investment, to locate bottlenecks or areas of limited resource or capacity in expansion, and to measure response of new businesses. To help achieve similar goals many methods have been tried in other places. Some are more useful than others. One found to be applicable and significant for this kind of analysis is the input-output model.

Planners can use input-output data and the computer to predict output changes in the economy. Thus, planners for a small fee can predict the impact of business income changes before they are made and decide if the anticipated economic results are desirable.

Objectives of the Study

The overall goal of the study is to procure input-output data which can be used by planners in the predictions of economic changes in the county. Other goals are:

1. To finalize a 1962 transaction table from an input-output study which was started with most of the data already gathered and compute the related input-output coefficients
2. To update the transaction table to 1967 for more current predictions and compute the related input-output coefficients
3. To make several final demand changes using the 1967 model with the accompanying predictions. The final demand changes are: to remove all purchases made by the students and Utah State University, to increase purchases made by the students by 17 percent, and to predict expansion necessary by businesses in the county to accomodate increased purchases by the students and the university with projections to 1980.

The first objective is used as a stepping stone in order to accomplish the second and third objectives. It was performed by working with Dr. Reed R. Durtschi, Economics Department, Utah State University, who had supervised a census of the business profile for Cache County in 1962-63 and had contributed many hours toward computation of the transaction table.

The second objective is necessary as the sectors in the county changed outputs at different rates. Some of the sectors had expanded outputs, others had continued at about the same rate of production, and others had decreased their outputs. This objective was accomplished through the use of questionnaires and secondary data in the form of

wages paid, number employed, price indexes, budgets, and agricultural statistics.

The third objective was accomplished through the use of the computer. Changes in final demand were inserted into the computer, which calculated new outputs. These predictions and techniques can be used by planners in their programs for growth and economic development.

INPUT-OUTPUT DEVELOPMENT

Discovery of the Input-Output Method

Input-output analysis has become a very effective tool in planning on a national level or in macroeconomic systems (Miernyk, 1965) (Harmston and Lund, 1967). Adam Smith and his immediate successors were the first to write about economics systematically. They dealt with macroeconomics. Later economists dealt with microeconomics or elementary business units. These economists, notably Alfred Marshall and those that followed him, worked with partial equilibrium. Later in the 1930's John Maynard Keynes revived the interest in general equilibrium and macro systems. However, neither of these groups, the microeconomists nor the macroeconomists, were concerned with economic independence and the structure of the economy and the way it fit together. Thus the need for input-output analysis developed. Input-output analysis is the study of the relationships of the distribution of the production as well as the procurement of inputs. This output relationship shows the influence business sectors have on the economy both in the purchasing of their inputs for production and in the sale of their production in the economy.

Francois Quesnay was perhaps the first to have the idea of economic independence. In 1758 he published his Tableau Economique. This publication was about the activities on a farm and the rounds of wealth that were produced through these activities (Newman, 1952).

Another article appeared in 1874. The writer was Léon Walras and the title: "Éléments d'économie politique pure" (Miernyk, 1965).

Walras was concerned with simultaneous determinations of prices in the economy. Each price had an equation and thus the transition was made from partial to general equilibrium. In addition, Walras used "coefficients of production." He viewed these as determined by technology, and they measured the quantities of inputs required to produce a unit of output or finished good. Thus in his models interdependence is shown among the sectors' categories of activities, in the economy, and in the competition between the sectors for the inputs or factors of production. He also took into account the costs of production in each sector, the total demand and supply of commodities, and factors of production.

Walras, a skilled mathematician, realized the formidable if not insurmountable task of the computation dealing with this analysis even though the data might be available. Today, high speed computers do this task effectively and very efficiently.

Other economists, notably Gustav Cassel of Sweden and Vilfredo Pareto of Italy, did work along this line and contributed to the theory of general equilibrium (Miernyk, 1965). Then in the 1930's Professor Wassily Leontief of Harvard culminated the work started by Quesnay by developing a general theory of production based on the notion of economic interdependence (Miernyk, 1965). Later, another great contribution was made by Leontief when he published the first input-output table for the United States economy (Leontief, 1936).

Even though Leontief's first input-output table was highly aggregated, it was the beginning of many tables. More than 40 nations have since developed input-output tables. The analysis can be adapted to

cover large regions of economic activity or small areas according to the need.

As input-output analysis has become popular, additional writers have published articles. A technical treatment of the works of Leontief and his associates is covered in "Inter-industry Economics" (Chenery and Clark, 1959). A good treatment of the way an input-output table is put together can be found in a book by Evans and Hoffenburt (1952). Miernyk (1965) gives a basic understanding of the input-output analysis.

Theoretical Discussion

Basic structure

Table 1 is an input-output transaction table of the basic inter-industry structure. It is designed to explain the way the activities of the economy influence one another and how they fit together. Activities in the economy are categorized according to their main functions, i.e., transportation, production, manufacturing, distribution, services, etc. Each category of activities, referred to as a sector, involves the purchases of inputs from other sectors and the production of goods which are sold to other sectors of the economy.

This table accounts for all the output of each sector and where it is distributed. It further accounts for all inputs of the other sectors and where they were purchased. Outputs or productions are read across the table with $X_i \geq 0$ denoting the total production for the i th sector, generally during a period of one year. Read vertically, the $X_{ij} \geq 0$ denotes the amount of the i th good produced by the j th industry that is used or consumed by the j th industry. Final demand, denoted as Y_i , is exogenous to the processing matrix and represents purchases by

households, governments, exports, and investment. The V_i represents inputs exogenous to the processing matrix and includes wages to households, dividends, imports, taxes, etc.

Thus, it follows that

$$X_i = X_{i1} + X_{i2} + \dots + X_{in} + Y_i \dots \dots \dots (1)$$

is the total amount produced.

Table 1. Input-output transaction table

Processing sectors				
Purchasing Producing		Outputs	Final demand Y_i	Total outputs X_i
		$I_1, I_2, \dots \dots \dots I_n$		
Inputs	I_1	$x_{11} \dots \dots x_{1j} \dots \dots \dots x_{1n}$	Y_1	X_1
	I_2	$\cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot$	Y_2	X_2
	\cdot	$\cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot$	\cdot	\cdot
	\cdot	$\cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot$	\cdot	\cdot
	\cdot	$x_{i1} \dots \dots x_{ij} \dots \dots \dots x_{in}$	\cdot	\cdot
	\cdot	$\cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot$	\cdot	\cdot
	\cdot	$\cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot$	\cdot	\cdot
	I_n	$x_{n1} \dots \dots x_{nj} \dots \dots \dots x_{nm}$	Y_n	X_n
Value added = V_i		$V_1, V_2 \dots \dots \dots V_n$		
Total input = X_j		$X_1, X_2 \dots \dots \dots X_n$		

Basic equations for the Leontief model

The previous section was a description of the structure of the basic Leontief model. The following includes the steps necessary to use the model as a predictive device. It will also provide a solution for the system.

Equation 2 presents the input-output system with its only variable, namely output, which is dependent upon the coefficients ($X_{ij}/X_j = a_{ij}$'s) and final demand (Y). Equations 3 through 7 trace the solution of the model and the derivation of the inverse matrix. The inverse matrix, or matrix of direct and indirect coefficients, shows the total change in required purchases of inputs of one sector from all other sectors, for a \$1.00 change in final demand of that one sector.

The input-output system can be expressed as

$$X_i = \sum_{j=1}^n X_{ij} + Y_i \quad i = 1, 2, \dots \quad (2)$$

where X_i represents total outputs of the i th sector, $\sum_{j=1}^n X_{ij}$ represents total demand as depicted by the processing portion, and Y_i represents final demand. Rewriting Equation 2 in matrix form yields

$$X = AX + Y \quad (3)$$

or

$$X = AX + Y \quad (4)$$

where X represents a column vector of outputs for the economy (n elements), A represents the nm matrix of trade coefficients (a_{ij} 's), and Y represents the column vector of final demand (n elements).

Let I represent a matrix where all entries are zero except those on a diagonal starting in the upper left corner and proceeding to the lower right corner. The diagonal entries are 1's. Thus with I representing an identity matrix, X can be multiplied times I , leaving it unchanged;

that is, $I = 1$, $IX = IX = X$.

Thus Equation 4 can be rewritten as

$$IX - AX = [I-A] X = Y \dots \dots \dots (5)$$

Solving for X in Equation 5 results in

$$X = [I-A]^{-1} [Y] \dots \dots \dots (6)$$

Thus the solution for the system is reached by using the inverse of $I - A$ for estimating new levels of outputs (X) with predicted new levels of final demand (Y). Equation 7 yields the projected levels of total outputs (X),

$$X = [I-A]^{-1} [Y] \dots \dots \dots (7)$$

(Bromley, Blanch, and Stoevener, 1968)

Example

A small three by three matrix will demonstrate the Leontief matrix, its solution, and check. The following matrix has three processing sectors. These sectors sold among themselves and to final demand purchasers.

Table 2. Example transaction table (in dollars)

Industry producing	Industry purchasing			Final demand	Total outputs
	R	B	C		
R	90	150	225	75	540
B	135	150	300	15	600
C	270	200	300	130	900

From the transaction table direct coefficients were calculated by dividing the total output for the sector into each input figure. This computation results in the A matrix.

Table 3. Example direct coefficient table or A matrix

Industry producing	Industry purchasing			A matrix
	R	B	C	
R	90/540	150/600	225/900	$\begin{bmatrix} .17 & .25 & .25 \\ .25 & .25 & .33 \\ .25 & .33 & .33 \end{bmatrix}$
B	135/540	150/600	300/900	
C	270/540	200/600	300/900	

The next step was to subtract the A matrix from an identity matrix. An identity matrix is a matrix with all zeros except for ones on the diagonals from the upper left corner to the lower right corner. The result of this subtraction is the I-A matrix.

Table 4. Example I-A matrix

I	-	A	=	I-A
$\begin{bmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{bmatrix}$		$\begin{bmatrix} .17 & .25 & .25 \\ .25 & .25 & .33 \\ .25 & .33 & .33 \end{bmatrix}$	=	$\begin{bmatrix} +.83 & -.25 & -.25 \\ -.25 & +.75 & -.33 \\ -.5 & -.33 & +.67 \end{bmatrix}$

From the I-A matrix the determinant was calculated. The process was accomplished through multiplication and subtraction. Letters were used to help demonstrate the system.

Table 5. Example determinant calculations

I-A matrix			
$\begin{bmatrix} p & q & z \\ +.83 & -.25 & -.25 \\ r & s & t \\ -.25 & +.75 & -.33 \\ u & v & w \\ -.5 & -.33 & +.67 \end{bmatrix}$			$+ (p.s.w) = +.417$ $+ (u.q.t) = +.041$ $+ (r.v.z) = +.021$ $- (u.s.z) = -.094$ $- (r.q.w) = -.042$ $- (p.v.t) = -.090$
	determinant		+ .126

Before the determinant was used a co-factor matrix was calculated from the I-A matrix. It was computed by multiplication and subtraction. Small letters were used for multiplication and subtraction, and capital letters for the co-factor matrix.

Table 6. Example co-factor matrix and calculations

I-A matrix	Calculations	Co-factor matrix
$\begin{bmatrix} p & q & z \\ r & s & t \\ u & v & w \end{bmatrix}$	$p.s-r.q = W$ $s.w-t.v = P$ $q.t-s.z = U$ $r.v-s.u = Z$ $p.w-u.z = S$ $q.w-v.z = R$ $p.v-q.u = T$ $r.w-u.t = Q$ $p.t-r.z = V$	$\begin{bmatrix} P & Q & Z \\ R & S & T \\ U & V & W \end{bmatrix} = \begin{bmatrix} +.39 & -.33 & +.46 \\ -.25 & +.43 & -.40 \\ +.27 & -.34 & +.56 \end{bmatrix}$

The co-factor matrix was multiplied by a +1 and -1 matrix. The result was a matrix with all positive values.

Table 7. Example positive co-factor matrix

$\begin{bmatrix} +.39 & -.33 & +.46 \\ -.25 & +.43 & -.40 \\ +.27 & -.34 & +.56 \end{bmatrix}$	$\begin{bmatrix} + & - & + \\ - & + & - \\ + & - & + \end{bmatrix}$	$\begin{bmatrix} +.39 & +.33 & +.46 \\ +.25 & +.43 & +.40 \\ +.27 & +.34 & +.56 \end{bmatrix}$
--	---	--

The positive matrix was transposed and multiplied by the determinant. The result was the adjoint matrix. This adjoint matrix is multiplied by final demand to compute outputs.

Table 8. Example adjoint matrix and transposing

$\begin{bmatrix} .39 & .33 & .46 \\ .25 & .43 & .40 \\ .27 & .34 & .56 \end{bmatrix}$	$\begin{bmatrix} .39 & .25 & .27 \\ .33 & .43 & .34 \\ .46 & .40 & .56 \end{bmatrix}$	$\cdot [1/.126] =$	$\begin{bmatrix} .39/.126 & .25/.126 & .27/.126 \\ .33/.126 & .43/.126 & .34/.126 \\ .46/.126 & .40/.126 & .56/.126 \end{bmatrix}$
---	---	--------------------	--

The adjoint matrix is multiplied by the original final demand to predict outputs.

Table 9. Example adjoint matrix multiplied by final demand for output check

	Computed outputs	Original outputs
$.39(75)/.126 + .25(15)/.126 + .27(130)/.126 =$	540	540
$.33(75)/.126 + .43(15)/.126 + .34(130)/.126 =$	598.4	600
$.46(75)/.126 + .40(15)/.126 + .56(130)/.126 =$	899.2	900

The computed outputs were very close to the same as the original outputs. The solution checked so computations were correct.

Changing final demand and multiplying it by the adjoint matrix results in new outputs. These changes in final demand can be used to predict new levels of total outputs. The outputs will change according to the effect caused by the change in final demand. Some sector outputs will be greatly affected while others might not be affected at all. This system can predict which sectors will be affected by changes in final demand, but only after the computations have been made can the amount of the total effect be determined.

In this example, changes in final demand for R, \$75 to \$50; B, \$15 to \$10; and C, \$130 to \$100, resulted in new outputs: R = \$389, B = \$435, and C = \$659, or a total of \$1,483 from the original R = \$540, B = \$600, and C = \$900, and a total of \$2,037. Thus, final demand changes can be inserted in the model and outputs can be predicted.

For a small three by three matrix, the calculations can be done by longhand, but for any larger matrixes the computer is used because it can take data and process them in a very short time, i.e., a 32 by 32 matrix takes less than three minutes.

Assumptions

One major assumption is necessary in using the input-output model as a forecasting tool. This assumption is that the technical coefficients will not change significantly over the forecasting period. These coefficients or individual input-output relationships generally do not change very rapidly. In fact, it is fairly safe to assume that for a two to three-year forecast they will not change or will not change enough to cause serious errors in the predictions. However, for a longer forecast, 10 years or more, it is not so safe to assume the stability of these coefficients as they are affected by changes in relative prices of inputs, technological changes, and the appearance of new industries (Miernyk, 1965).

Relative price changes can cause substitution of one factor for another. An example would be using steel in place of wood if the price of wood increased at a greater rate than steel. This rise would make steel, in essence, relatively cheaper than wood, causing the technical coefficients to change just as they would change if one output price changed at a faster rate than another without substitution. However, if prices of all inputs rose by a similar amount, the coefficients would not change.

New technology could change the input ratios, especially if new machinery replaced labor or if inputs which were formerly imported were manufactured locally. This change would affect coefficients; however, input-output analysis can handle even these changes and effects easier than other methods of forecasting (Miernyk, 1965).

New businesses entering the area can affect the forecasts, both if they are a new type of business or if they could be included in a

present sector. If the business is not included in the matrix or final demand, its purchases and production will not show up in the predictions. A new business might compete for inputs, which could raise their price and bring new methods of production with accompanying different coefficients or could cause the price of the product they are producing to fall with the new increases in products for sale.

Thus, forecasting requires an important assumption that there will be no significant change in the technical coefficients or that forecasters will allow for them.

Applicability

Assuming fixed coefficients invited criticism. Milton Friedman states:

. . . I want to emphasize at the outset the distinction between the input-output table, regarded as a statistical description of certain features of the economy, and input-output analysis, regarded as a means of predicting the consequences of changes in circumstances. (National Bureau of Economic Research, 1955, p. 170)

Researchers have realized the limitations of these static models and are searching for answers and advanced mathematical techniques to solve these problems. But even with these limitations, input-output models have done quite well in comparison with other methods (Miernyk, 1965).

Input-output forecasting deals with highly detailed forecasting, that is, sector by sector and industry by industry, whereas other methods forecast with broad aggregates. All methods have the problems of forecasting errors due to nonaccurate measurement or observation, the uncertainties built into the free-market system, and some statistical nonmeasurement. Since all methods are faced with these data problems, which method seems to be the best? Of the limited comparisons a test made by Michio Hatanaka comparing multiple regression predictions

and input-output predictions gave results indicating that input-output had a margin of superiority (though an uncertain one) (Chenery and Clark, 1959). Thus, input-output with its limitations is a good method of predicting and has been used by many countries including the United States (Miernyk, 1965).

There have been some questions as to the applicability of input-output analysis and forecasting to small areas such as Cache County. Let it be said that if more detailed models for small areas were made, larger area models could be assembled easier and used with less chance of error. Planners would be able to understand operations in smaller areas and the corresponding effect within the larger area. Further, the real question is not size but whether or not the area is undergoing a major shift from one industry to another. An example of this would be a shift from coal to oil. If a major shift is occurring, adjusted predictions for small areas should help make the larger area predictions better as well as easier. A main point to consider, though, is that the multiplier for smaller areas will be smaller since there will not be as many rounds of spending, but, allowing for this, the small area activities also make up the activities of the larger area. Thus, both are important (Harmston and Lund, 1967).

Uses and advantages of input-output models

Since input-output analysis is proving so valuable in comparison with other techniques, describing a few of the uses is in order (Miernyk, 1965).

Bottlenecks can be located with input-output analysis. This is accomplished by forecasting and checking the outputs. Inputs for the sector are then checked. If certain inputs cannot be purchased then a

bottleneck appears and substitution or another source of the inputs must be located. If the plant cannot expand its production because of its limited facilities, this also points out a bottleneck. If both the facilities and the inputs can be purchased then no bottleneck appears and the expansion can take place without serious growing pains or new facilities.

Input-output models are flexible in that the tables can be detailed and disaggregated or as aggregated as needed. That is, there can be as many sectors or as few as needed. In this respect it is flexible. The only limitation is that in the table there must be at least one row for each column.

The input-output model can be used as a technique to compare one economy or county with another. It can be used to compare a developed country with another. The comparison would be between sectors that are of like activity. The undeveloped sector could see how it would need to expand and purchase inputs as well as where it could expect to make its sales by looking at a developed county table and comparing it with its own.

Input-output analysis can be used to measure the impact of new businesses. The effect of a new business in the economy can be measured by inserting the business into the transaction table as a part of a present sector. Thus, the effect of a new business can be calculated before it enters the economy to see if it will result in development economically. This effect can be measured by comparing outputs of the original table with the new predicted outputs. If, on the other hand, a new type of business for a new industry enters the economy, a new sector will need to be created since the business will be both purchasing

inputs and selling outputs. The impact of this new type of business can be calculated by checking the total original outputs with the new predicted outputs for the whole economy after the business has been inserted into the table.

Input-output analysis can be used to predict new outputs if final demand is changed. If the demand forecast changes are accurate, the output forecasts will be accurate. This information can help businesses in the economy adjust their production and employment to meet the predicted output changes. Thus, this information is valuable to business analysts, economists, and policy-makers. Also, it is possible if there is underemployment to predict needed additional output to bring full employment. This is accomplished by checking the employment in the sector with the additional employment needed. Wages are a part of the household sector and a very important part of the table.

For the individual enterprise consistent forecasting provides important guides to managers and policy-makers. Managers of firms have a good idea of their share of the total market of the sector and their input costs and coefficients. The manager will also know whether his share of the market is increasing, decreasing, or remaining stable. With the knowledge he has and with the realistic predictions, the manager is in a good position to adjust his firm to take best advantage of the market in which he buys and sells. Consistent and accurate forecasts can remove some of the uncertainties businesses face in their planning and projecting.

For short-run planning input-output models provide the government with a method of predicting outputs by sectors. By referring to the household sector and through the use of the predictions, the government

could indicate that an estimated 500,000 more cars would be needed in 1971 than were produced in 1970. The car industry could make arrangements to produce the extra cars and the steel industry to produce the additional steel. The French economy has had very good success with this system with noncoercive planning (Miernyk, 1965).

Private firms can use input-output analysis in their marketing programs. When a sector markets its production, it sells different amounts to different sectors in the row across the transaction table. If the forecast reveals which sectors will need more of the products, the sector is in a better position to market them. Thus, by predicting final sales, marketing personnel could forecast interindustry requirements for many products. This would make for a better sales forecast for products and a smoother-running firm for the production of the predicted outputs (Evans, 1952). Also, if the firms knew the forecasts, they would also know the sectors which would have the largest need for additional inputs and the producer could give special attention to these sectors.

The preceding has been a basic discussion of input-output analysis. The following will deal directly with the input-output studies of Cache County in 1962 and 1967. Harmston and Lund (1967) have an excellent set of references in the back of their book, Application of an Input-Output Framework to a Community Economic System, if additional reading of input-output analysis is desired.

Cache County Input-Output Efforts

Economic development information and literature about Cache County are limited. There are some sources of secondary data, but most of the

data for input-output models must be gathered from primary sources through personal interview with the use of questionnaires.

The first to do any empirical work in the input-output analysis in Cache County was Dr. Reed R. Durtschi, Economics Department, Utah State University. He wanted to make a study to show the influence the university had upon the county. Thus, he supervised a census of businesses in 1962-63. This included the classification of each business by the Industrial Classification Code (Executive Office of the President, 1957) and the dividing of the economy into sectors according to the main activities in the county. Each business was placed in a proper sector. This categorization was followed by an interview with the manager or owner to obtain the needed data. Next followed analysis, calculations, and compilation of the data into an input-output dollar flow sheet which showed the estimated dollar amounts that flow as inputs and outputs in the sectors.

Bruce Godfrey, a graduate student in 1967, worked on the table and finished it enough to use it in his thesis (Godfrey, 1967). The 1962 table was then taken in 1968 and, with Dr. Durtschi's help, checked and adjusted as necessary. It was then rechecked against secondary data and other published studies for consistency and was completed in 1968.

CACHE COUNTY MODELS

The Cache County input-output tables are composed of 32 processing and producing sectors. The composition of each sector is made up of similar businesses. When combining businesses of different activity into a single sector, two relationships become apparent (Dorfman, Samuelson, and Solow, 1958). The first relationship is that the new a_{ij} 's for the composite industry are made up of weighted averages from each business. The weight is proportionate to the size of the business and its contribution to the sector. The other relationship is that the industries' production as a whole must equal the sum of the combined businesses.

In making up the table, all of the businesses were listed and categorized according to their main activity. The Industrial Classification Code gives an excellent breakdown of activities and numbers them.

The number of sectors in a table is determined by the amount of detail desired. If many activities are combined, some information and data are lost. If more detail is desired, more sectors should be used.

Classification and combining businesses can be based upon main activities in production of like products, types and quantities of input, aggregate changes in the same proportion of input, and lack of prime concern in the study. The last item could take place without adding serious errors as long as businesses which were of prime concern were not combined with those of lesser importance.

Table 19, Appendix A, shows the breakdown of the 32 industries and sectors. The sector number is the number assigned to the sector in the table. The Industrial Classification Code classifies the activities and types of businesses that occur in each sector with their accompanying code numbers. The main column describes the main activity of each sector. From this breakdown it is easy to classify a business and locate where it would be in the table.

The Transaction Tables

The inter-industry flow table gives the actual dollar flow of goods and services in Cache County for the year indicated on the table. Table 20, Appendix B, is for 1962 and Table 24, Appendix C, is for the year 1967. The industries producing are the industries that buy input and produce output of goods and services for sale. Input figures are read up and down vertically. They are dollar figures and represent purchases of raw materials of fuel, electricity, taxes, labor, equipment, imported input from outside the county, etc. The total dollar amounts of input equal total output in dollars for each sector.

Total production is sold in the economy to other producing industries, businesses in the same industry, households, Utah State University, university students, and businesses outside of the county, and is invested in the form of capital. These sales figures are read horizontally across the table. Exchange among businesses of the same sector is found by reading across on the row selling to the column with the same number as the row. The sales of one industry to another can be found by locating the industry row number selling and by reading across to the

industry purchasing column. Thus, the flow table gives a view of where industries purchase input and sell output.

Direct coefficients are calculated from the flow table. These coefficients are used by the computer.

Direct Coefficients and Multipliers

The direct requirements per dollar of output, Tables 21, Appendix B, and 25, Appendix C, are the tables of technical coefficients. These coefficients are derived by dividing the total dollars of input for the industry producing into each input required in production. As an example, if total input equals \$5,927 for the meat-packing sector and if input from the farms and fishery sector to meat-packing was \$1,197, the technical coefficients would be $1,197/5,927$ equals .201957. In other words, out of every dollar of input there is \$.20 worth of input that is purchased from the farm and fishery sector. These are direct purchases of meat packers from farms and fisheries in the county.

These coefficients are used to calculate the I-A matrix which is programmed into the computer. The process is to take a matrix with all zeros except for ones on the diagonal and subtract the direct coefficient table from it. The only figures that will be positive will be those on the diagonals. The rest will be negative figures. (See the previous example on Page 9.) This matrix with final demand is key-punched onto cards and fed into the computer. The computer can do in a few minutes a job which would take men months. The I-A matrix plus changes in final demand inserted into the computer will result in new predicted output for the economy.

Once the computer has finished the program it will print new output as well as direct and indirect coefficients. These are the direct as well as the indirect effects of the change in business activity. The total for each column represents the multiplier effect and change in business output stemming from the change in final demand. Tables 22, Appendix B, and 26, Appendix C, give these multipliers for 1962 and 1967 respectively. As might be expected, these multipliers are small since the area is small and depends heavily upon imports. Also, much of the size of the multiplier is dependent upon how many times the funds in the community change hands and how soon the transfer takes place. A community that is more self-sufficient will have a higher multiplier than one which depends more on imports.

One Percent Change in Final Demand
One Sector at a Time

Immediately following the tables of direct and indirect coefficients are the tables of output changes computed with a one-percent change in final demand one sector at a time. These tables help show the effects upon other sectors when one sector is expanded. Planners could multiply these output effects if they wanted to see the results of expansion of a sector on a larger scale. Table 23, Appendix B, and Table 27, Appendix C, give these output changes with one percent changes in final demand. Thus, planners get a better view of the relationship of the sectors to the other sectors and to the economy. As an example, if the other food manufacturing sector was expanded one percent, the expansion would affect the meat-packing, grain-grinding, autos and gas, farm supply and feed, farm and fishery, and transportation sectors. Total output would increase for all of these sectors, i.e., farms and

fisheries would increase from \$18,257,000 to \$18,271,000. If the other food manufacturing sector was expanded by four percent, the effect on the above listed sectors would be four times as great.

Updating the Flow Chart to 1967

Since data for the 1962 tables are several years old, updating the transaction table was important to make forecasts more applicable. Since time and funds were limited, an actual census of the whole business economy was not taken. An actual census is the best method of updating, but since this was impossible, substitute methods were used. As has been previously mentioned, there are three main changes that can affect the technical coefficients. They are price changes of relative input, technological changes, and new industries. To check the sectors for these changes, several methods were used.

To check for new industries a census of employers in Cache County was examined (Utah Employment Security Office, 1962 and 1967). All of the new firms that started were producing within present functioning industries, so the 32-sector table still covered the producing economy.

As a means of checking technological and price changes, questionnaires were sent to key firms in the county. Two questions were asked: "What were the total wages paid in 1962 and in 1967?" and "What were total outputs for 1962 and 1967?" If the ratios of these changed significantly, the sector coefficients were checked and adjusted as necessary, as was done in Sector 1. If the ratios between wages paid and outputs were not changed, the total sector inputs were expanded in proportion to the increase in dollar wages paid. All of the sectors were changed accordingly except those listed specifically later.

This updating was based upon the assumption that if technical coefficients changed, one of the first inputs that would change would be wages. For example, in 1962 wages equaled \$20, outputs equaled \$100, and the ratio was \$20 to \$100; in 1967 wages equaled \$25, outputs equaled \$125, and the ratio was \$25 to \$125. The ratio for the two periods is one to five, or wages are 20 percent of outputs. It is therefore assumed that there was no significant change in technical coefficients. Then the sector was expanded using the 1967 wages divided by the 1962 wages ($25/20$) or by 25 percent. That is, all input entries were expanded to 125 percent including entries for total inputs, imports, households, and Cache County.

Sector 1 was updated due to changes in technical coefficients in the sector. It was accomplished by interviewing the major producer and weighing the other producers based upon changes in wages paid. Thus the whole sector was recalculated.

Sector 2 was increased in the same manner as were most of the sectors except for an adjustment in the products sold by farmers to the sector and the balance in the rest of the world as imports. The reason for this adjustment was the fact that more Grade A milk was being shipped out of the county to Salt Lake and Ogden and more Grade B milk was being shipped into the county from the rest of the world.

Sectors 8, 14, 21, and 30 were updated by using the change in actual number of people employed plus the change in the consumer price index for the commodity being produced (Abstract of the United States, 1968). An example is as follows: The number of employees in 1962 was five. The number of employees in 1967 was six. Six-fifths equals 120 percent. That is, the number of employees increased 20 percent.

The consumer price index for 1962 was 100. The consumer price index for 1967 was 107. All of the entries for the sector in 1962 were multiplied by 1.07 times 1.20 to obtain the expanded figures for 1967. It was assumed that when wages paid is used in updating, any increases in wages paid include some inflation; thus, the need for using both the price index and the change in number employed arises when not using wages paid.

Sector 29 was expanded because of increases in Grade A milk sales since milk production was a major part of the sector.

Sector 32 was adjusted by a weighted amount due to an increase in the number of Cache County residents, in student numbers at the university, and in businesses in the county.

Increases in the final demand sectors were accomplished by several means. The Cache County government sector was increased based upon increased revenues and taxes collected in 1967 above those collected in 1962. Utah State University entries were expanded by using the 1967 budget. Entries for university students' purchases were increased by dividing the total purchases for 1962 by the student population, 1962, multiplying this figure by the 1967 student population, and dividing the overall consumer price index of 1967 by that of 1962. Entries for households were expanded in the same manner as those for student purchases except Cache County residents were used in the place of student populations, and households' total purchases in the place of student total purchases. The capital formation entries were adjusted by the percent change in each sector during the period. Total output for each sector equals the total input for the same sector. Thus, if the production of the sector was not completely purchased in the county, the

balance was exported to the rest of the world. On the other hand, if the sector could not buy its inputs in the county, these purchases were included as imports from the rest of the world. Thus, for final demand it was assumed that technical coefficients had not changed significantly and that the final demand purchases were at the same ratio as before, excluding the rest of the world and capital investment. It was assumed that if production decreased in the sector, the taxes paid to the county did not decrease, and if production increased, taxes went up accordingly.

Once the table was updated, the direct coefficients table and I-A matrix could be calculated.

ECONOMIC IMPACT OF UTAH STATE UNIVERSITY
ON CACHE COUNTY

Utah State University contributes a large amount to the business income of Cache County. To calculate the impact, three changes were made in final demand using the 1967 model. The first change was to remove the university and the students from the table. Assuming that everything else was constant, the business income decreased through direct and indirect losses of purchases by the students and the university of about \$15,039,000. The dollar losses per sector with the percent losses in business income by the sectors are calculated into Table 10. The total output per sector is also in the table. The seven sectors which lost the most dollar volume are computed into Table 11. The rental and lodging sector was affected the most with losses of \$2,283,000. Table 12 has the seven sectors which lost the highest percent of income compared to the other sectors. The amusement and recreation sector would have lost the greatest percent of business income, i.e., 51 percent. The sectors which had the greatest dollar and percent losses would also be the sectors to gain the most if the university and student spending were to increase. Business income would also decrease or increase due to the effect of the change in the wages paid by the university, which does not enter directly into the matrix. This loss of \$10,344,000 paid in wages in 1967 with its multiplying effect, plus the actual business income loss of \$15,039,000, would cause a total loss of between \$30,000,000 and \$40,000,000.

Table 10. Output changes with Utah State University and students removed from final demand, 1967

Industry producing	1967 output \$1,000	USU & students removed		
		Output \$1,000	Loss \$1,000	Remain- ing percent
1. Meat packing	21,103	20,898	205	99.0
2. Milk processing	18,499	18,248	251	98.6
3. Grain grinding	1,755	1,718	37	97.9
4. Other food manufacturing	7,972	7,830	142	98.2
5. Primary metal goods	4,253	4,247	6	99.8
6. Concrete & concrete products	841	775	66	92.2
7. Textiles & apparel	1,377	1,376	1	99.9
8. Printing & engraving	866	739	127	85.3
9. Building supplies & equipment	3,681	3,408	273	92.6
10. Farm & industry equipment	3,198	3,182	16	99.5
11. Food stores	12,390	10,686	1,704	86.2
12. Autos, gas & durable equip. repair	16,991	15,360	1,631	90.4
13. Home furnishings	2,700	2,358	342	87.3
14. Eating & drinking	3,644	2,251	1,393	61.8
15. Specialty stores	1,504	1,110	394	73.8
16. Farm supplies & feed	3,487	3,362	125	96.4
17. Drug & variety	2,379	2,178	201	91.6
18. Dept., gen. merc., apprl. & dry gds.	12,671	11,808	863	93.2
19. Other trades	1,232	1,188	44	96.4
20. Medical, dental & legal	7,014	6,452	562	92.0
21. Amusement & recreation	1,165	571	594	49.0
22. Apparel care & repair	850	351	499	41.3
23. Other services	1,825	1,005	820	55.1
24. Commercial banks	2,671	2,552	119	95.5
25. Real estate & insurance	5,593	5,448	145	97.4
26. Other lending	2,018	1,903	1,115	94.3
27. Gen. building & subcontracting	11,628	11,438	190	98.4
28. General construction	7,630	7,601	29	99.6
29. Farms & fisheries	19,167	18,912	255	98.7
30. Transportation	3,587	3,133	454	87.3
31. Utilities	6,634	5,481	1,153	82.6
32. Rental & lodging	4,597	2,314	2,283	50.3
Totals	194,922	179,883	15,039	

Table 11. Sectors with highest dollar loss in business income, 1967

No.	Sector	Loss \$1,000
32	Rental and lodging	2,283
11	Food stores	1,704
12	Autos, gas & durable equip. repair	1,631
14	Eating and drinking	1,393
31	Utilities	1,153
18	Dept., gen. merc., appl. & dry gds.	863
23	Other services	820

Table 12. Sectors with largest percent decrease in business income with percentages as percent of 1967 production

No.	Sector	Remaining percent
22	Apparel care & repair	41.3
21	Amusement & recreation	49.0
32	Rental & lodging	50.3
23	Other services	55.1
14	Eating & drinking	61.8
15	Specialty stores	73.8
31	Utilities	82.6

The second change was to increase student numbers by 17 percent. This may have been the additional increase above the increase from 1962 to 1967 if out-of-state student populations had increased at the same percentage rate as in-state students. This change assumes that university spending did not increase and that student spending per student remained the same. Table 13 gives the output changes with the dollar change per sector and the percentage change, Table 14 gives the seven sectors with the highest dollar output changes, and Table 15 gives the seven sectors with the highest percent changes.

The third change was to increase student numbers and university spending. Student numbers were forecast to increase 70 percent by 1980. Assuming that university spending increases at the same rate as the number of new professors hired, spending would increase by 49 percent (Preliminary Report on Long-Range Program Planning, 1968). Holding student spending per student and all other factors constant, the business income was forecast to increase \$10,038,000 plus the amount due to effects of the additional wages paid by the university and due to the multiplier effect. Wages would increase by \$5,068,000, so this effect would be significant. Table 16 gives the increase in output with the increase per sector both in dollars and percent, Table 17 gives the seven highest dollar increases in the county, and Table 18 gives the seven highest sector percentage increases.

Not all of the sectors were affected by the same dollar and percentage figures. Bottlenecks will occur unless the sectors can increase output to meet the increasing demand. Output is only part of the whole increase necessary as it represents only the expansion necessary to take care of the growth of the university. There are also other growths that

Table 13. Output changes with student population increase of 17 percent in final demand, 1967

Industry producing	1967 output \$1,000	Students increased		
		New output \$1,000	Gain \$1,000	In- crease percent
1. Meat packing	21,103	21,135	32	.2
2. Milk processing	18,499	18,538	39	.2
3. Grain grinding	1,755	1,761	6	.3
4. Other food manufacturing	7,972	7,991	19	.2
5. Primary metal goods	4,253	4,253		
6. Concrete & concrete products	841	842	1	.1
7. Textiles & apparel	1,377	1,377		
8. Printing & engraving	866	876	10	1.2
9. Building supplies & equipment	3,681	3,688	7	.2
10. Farm & industry equipment	3,198	3,198		
11. Food stores	12,390	12,667	277	2.2
12. Autos, gas & durable equip. repair	16,991	17,229	238	1.4
13. Home furnishings	2,700	2,755	55	2.0
14. Eating & drinking	3,644	3,880	236	6.5
15. Specialty stores	1,504	1,567	63	4.2
16. Farm supplies & feed	3,487	3,492	5	.1
17. Drug & variety	2,379	2,411	32	1.3
18. Dept., gen. merc., appl. & dry gds.	12,671	12,812	141	1.1
19. Other trades	1,232	1,238	6	.5
20. Medical, dental & legal	7,014	7,106	92	1.3
21. Amusement & recreation	1,165	1,266	101	8.7
22. Apparel care & repair	850	929	79	9.3
23. Other services	1,825	1,897	72	3.9
24. Commercial banks	2,671	2,690	19	.7
25. Real estate & insurance	5,593	5,615	22	.4
26. Other lending	2,018	2,037	19	.9
27. Gen. building & subcontracting	11,628	11,645	17	.1
28. General construction	7,630	7,633	3	
29. Farms & fisheries	19,167	19,199	32	.2
30. Transportation	3,587	3,618	31	.9
31. Utilities	6,634	6,757	123	1.9
32. Rental & lodging	4,597	4,982	385	8.4
Totals	194,922	197,084	2,162	

Table 14. Sectors with highest dollar increase in business income with student population increased 17 percent, 1967

No.	Sector	Increase \$1,000
32	Rental & lodging	385
11	Food stores	277
12	Autos, gas & durable equip. repair	238
14	Eating & drinking	236
18	Dept., gen. merc., appl. & dry gds.	141
31	Utilities	123
21	Amusement & recreation	101

Table 15. Sectors with highest percent increase in business income with student population increased 17 percent, 1967

No.	Sector	Increase percent
22	Apparel care & repair	9.3
21	Amusement & recreation	8.7
32	Rental & lodging	8.4
14	Eating & drinking	6.5
15	Specialty stores	4.2
23	Other services	3.9
11	Food stores	2.2

Table 16. Output changes with student population increase of 70 percent and USU increase of 49 percent in final demand, projected to 1980

	1967 output \$1,000	USU & students increased		
		1980 output \$1,000	Gain \$1,000	In- crease percent
1. Meat packing	21,103	21,243	140	1
2. Milk processing	18,499	18,670	171	1
3. Grain grinding	1,755	1,779	24	1
4. Other food manufacturing	7,972	8,066	94	1
5. Primary metal goods	4,253	4,256	3	0
6. Concrete & concrete products	841	875	34	4
7. Textiles & apparel	1,377	1,377	0	0
8. Printing & engraving	866	941	75	9
9. Building supplies & equipment	3,681	3,823	142	4
10. Farm & industry equipment	3,198	3,206	8	0
11. Food stores	12,390	13,567	1,177	10
12. Autos, gas & durable equip. repair	16,991	18,085	1,094	6
13. Home furnishings	2,700	2,935	235	9
14. Eating & drinking	3,644	4,618	974	27
15. Specialty stores	1,504	1,775	271	18
16. Farm supplies & feed	3,487	3,554	67	2
17. Drug & variety	2,379	2,516	137	6
18. Dept., gen. merc., apprl. & dry gds.	12,671	13,268	597	5
19. Other trades	1,232	1,260	28	2
20. Medical, dental & legal	7,014	7,403	389	6
21. Amusement & recreation	1,165	1,582	417	36
22. Apparel care & repair	850	1,192	342	40
23. Other services	1,825	2,317	492	27
24. Commercial banks	2,671	2,753	82	3
25. Real estate & insurance	5,593	5,690	97	2
26. Other lending	2,018	2,098	80	4
27. Gen. building & subcontracting	11,628	11,742	114	1
28. General construction	7,630	7,648	18	3
29. Farms & fisheries	19,167	19,332	165	1
30. Transportation	3,587	3,847	260	7
31. Utilities	6,634	7,351	717	11
32. Rental & lodging	4,597	6,191	1,594	35
Totals	194,922	204,960	10,038	

Table 17. Sectors with highest dollar increase in business income projected to 1980

No.	Sector	Increase \$1,000
32	Rental & lodging	1,594
11	Food stores	1,177
12	Autos, gas & durable equip. repair	1,094
14	Eating & drinking	974
31	Utilities	717
18	Dept., gen. merc., appl. & dry gds.	597
23	Other services	492

Table 18. Sectors with highest percent increase in business income projected to 1980

No.	Sector	Increase percent
22	Apparel care & repair	40.2
21	Amusement & recreation	35.8
32	Rental & lodging	34.7
23	Other services	27.0
14	Eating & drinking	26.7
15	Specialty stores	18.0
31	Utilities	10.8

need to be considered. They will not be covered by this study but only pointed out. The population growth and the business growth are several. As is pointed out by Tables 15 and 18, the sectors that will need to grow the most in percentage are eating and drinking, amusement and recreation, specialty stores, apparel care and repair, other services, utilities, and rent. These sectors will all need to expand between 10 and 45 percent at a minimum. They will receive the greatest reduction in output if the university and students decrease their spending.

SUMMARY

The Northern Utah Study Group was organized to help furnish planners with data. These data were to be used by the planners to economically develop Cache, Rich, and Box Elder Counties. An input-output study was made to help Cache County planners.

The original objectives of the input-output study were to finalize a study done in 1961-63 by Dr. Reed R. Durtschi, to update a transaction table to 1967, and to predict new output for the economy if final demand changed.

Finalization of the 1962 transaction table was accomplished by late summer of 1968 after many hours of checking, adjusting, and rechecking data. The table was checked against other input-output studies for consistency and released in 1968. With this 1962 input-output transaction table it was possible to update a transaction table to 1967 through the use of secondary data and check interviews with key businesses. After the transaction table was completed for 1967, it was used to calculate the direct coefficients and the I-D matrix for the computer, which predicted new output for the economy if final demand changed. Several final demand changes were made and run through the computer. The major emphasis was on demand changes with the students of the university. This was done to indicate the impact that the university and the students have on the Cache County economy.

Three basic university and student changes in final demand were made. The first was to remove the university and students from the 1967 table to estimate the total possible business income loss. The second

was to increase student population 17 percent in 1967 and let university spending remain constant. The third change was to forecast changes in output to 1980 with student population increasing 70 percent, university spending increasing 49 percent, and other business activity remaining constant.

Final demand was also changed one percent a sector at a time in 1962 and 1967 to see the influence each sector's final demand had upon all other sectors' output. Planners can use this predicted output as an indication of the sectors which will be affected if certain sectors are expanded.

Results of this study indicate that input-output analysis can be used effectively in Cache County and that the university is a large contributor to business income in the economy. Further, the university is an industry that could be expanded, as it affects all other sectors in the economy. This, no other business or industry does.

CONCLUSIONS

In conclusion, Cache County planners can use input-output models in predicting output and possible outcomes of economic development, especially since the computer is available at the university and the fee is reasonable. Planners can put any type of final demand changes into the computer with the input-output data and receive predictions. The computer runs of this study dealt with final demand changes of one percent, one sector at a time, and university and student changes. The study shows that a change in one sector's final demand does not affect all other sectors but that it affects only certain others in differing amounts. Even changing the effects of the university and the students together gave differing effects than if the students alone were changed. The results also pointed out that the dollar change in output is different than the percent change in the volume of business. If planners are interested in total increases in dollar volumes, they should consider the dollar changes and not the changes in percent of business. However, planners should not overlook the importance of changes in per capita income and environmental changes resulting from economic development.

The changes in final demand in 1967 if the university and the students were removed gave a loss in business income of \$15,039,000. There would also be a loss of \$10,344,000 for wages paid in the county and a direct and indirect loss to business income. The total loss of business income for 1967 is therefore estimated to be \$30,000,000 to \$40,000,000, or the university and the students contribute that much in business income to the county.

If the student population had been increased 17 percent in 1967 without any additional expenditures by the university, additional business income should have increased by \$2,162,000. This in itself would have been quite a boost to the economy.

Projections to 1980 give additional business income for the economy estimated at \$10,038,000. This would be the business income of direct and indirect spending by the university and the students and does not include the effects of increase in wages paid by the university. It is estimated at about \$5,068,000. Thus, the total effect in increased business income would be estimated at \$18,000,000 to \$20,000,000.

In economic development the input-output table could be a very effective tool and the university could be an effective area to develop.

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APPENDIXES

Appendix AMakeup of Cache County Input-Output Models

Table 19 was compiled to show the sectors in the 32 by 32 input-output matrix of Cache County. The sectors are divided into activities and combined according to the Industrial Classification Code. This table is to help planners locate various business activities within the economy and help classify them. It also includes the makeup of the final payments and final demand sectors.

Table 19. Sector makeup of input-output matrix

Sector no. or title	Industrial classification code no.	Major activity
<u>Manufacturing</u>		
1	201	Slaughtering, packing, and processing meat animals
2	202	Processing and distribution of milk and milk products (evaporated milk, fluid milk, cheese, dry milk, etc.)
3	204	Grain grinding and processing
4	203, 206, 207, 208, 209	Processing or canning meat byproducts, sugar or sugar products, vegetables, soda drinks, etc.
5	34, 35, 3722	Production of machines, machinery, and goods from metal products
6	32	Production and distribution of liquid concrete
7	22, 23	Production of clothing and mattresses
8	27	Printing, publishing, and distribution of newspapers; custom printing; and sales of publications
<u>Trade</u>		
9	521, 522, 523, 524, 5077	Selling and distribution of lumber, building paints, hardware, supplies, and building equipment
10	5082, 5083, 5252	Selling and servicing farm, industrial, and commercial equipment
11	54, 504, 5095	Retail and wholesale food products, bakeries, liquor stores, and beverage distribution
12	501, 551, 552, 5936, 554, 5092, 553, 75, 76	Selling, servicing and repairing of automobiles and trucks; retail and wholesale gas, oil and tires; durable equip. repair, recapping, auto parts stores, and self-service stations
13	57	Retailing home furnishings, appliances, and musical instruments
14	58	Restaurants, cafes, drive-ins, clubs, and specialty eating places

Table 19. Continued

Sector no. or title	Industrial classification code no.	Major activity
15	5942, 5943, 5952, 5992, 5997, 5998	Optical, sporting goods, jewelry, gift, and book stores
16	596	Farm supply and feed stores, and nursery and floral shops
17	5912	Pharmacies and drug stores
18	56, 503, 539, 5311, 5251, 5331	Men's, women's, babies', teens' and children's stores, shoe stores, and general and specialty clothing stores
19	5093, 5099, 5982, 5989, 505, 5086, 47	Stamp stores, coal and hardware, metal scrap yards, stocks and bonds, misc. trades
<u>Services</u>		
20	80, 81, 89	Doctors, clinics, hospitals, nursing homes, dental service, and lawyers' offices and ser- vice
21	78, 79	Golf clubs, theaters, ski resorts, bowling alleys, pool halls, skating rinks, etc.
22	7211, 7215, 7251, 7216, 7271	Dry cleaning service, shoe repair shops, laun- dramats
23	723, 724, 7221, 7261, 7312, 7321, 7349, 7399	Barber shops, beauty shops, travel agencies, mortuaries, photography services, sign paint- ing, credit bureaus, etc.
<u>Banking, insurance & real estate</u>		
24	60	Loans, checking and savings accounts
25	64, 66, 6512, 6513, 6531, 6541	Insurance service, real estate sales and ser- vice
26	61	Credit unions, finance companies, agricultural land and operating loans and services, mort- gage and loan services
<u>Construction</u>		
27	15, 24, 25, 26, 3791, 17	Building contractors and subcontractors
28	16	Road construction and general construction

Table 19. Continued

Sector no. or title	Industrial classification code no.	Major activity
<u>Other sectors assigned numbers</u>		
29	01, 09	Commercial fisheries, all farm activity, auction yards, veterinarians, artificial insemination service
30	40-46	Air service, freight trucking, general trucking, local bus service, cold storage service, mail service, moving service, etc.
31	48, 49	Electricity, telephone, and natural gas service, irrigation companies, radio and television service, and telegraph service
32	6515-6519, 70	Hotels, motels, apartments, and dormitories
<u>Final payments</u>		
Households		Income residents of the county, other than students at the university, receive in the form of income, interest, dividends, etc. It also includes depreciation.
Cache County		Income received by the county government in the form of taxes, fees, state grants, etc.
Rest of the world		Purchases of goods and services from outside the county to be used in the county. It includes federal and state taxes paid and the purchase of all other production items not purchased within the county.
Total		Total input required in the operation of the business sector including purchases both in and out of the county, taxes, wages, and a profit margin if there is one
<u>Final demand</u>		
Households		Purchases made by all of the residents of the county, excluding the university students, to the various business sectors, taxes, and those purchases made outside of the county
Cache County		Purchases made by the county government in its operation of the schools, roads, health department, etc. These would include purchases made both in and out of the county.

Table 19. Continued

Sector no. or title	Industrial classification code no.	Major activity
Utah State University		All purchases made by the university in its operation both in and out of the county which come under the budget
USU students		Purchases made by the students from businesses in the county and taxes paid to county government
Capital		Private investment in businesses
Rest of the world		Sales made to the businesses and people outside of the county by the businesses within the county. It also includes wages earned outside of the county and revenue received by the county government from sources outside of the county.
Total		Total sales of the business sectors, total income received by households, and total revenue received by the county government

Appendix B1962 Input-Output Tables

Tables 20, 21, 22, and 23 are tables computed from the 1962 input-output data. Table 20 is the transaction table. Table 21 deals with direct coefficients. Table 22 deals with direct and indirect coefficients or multipliers. Table 23 has to do with output changes when final demand is changed one percent, one sector at a time.

Table 20. Interindustry flow of goods and services, Cache County, Utah, 1962 (thousands of dollars)

Industry producing	Industry purchasing			
	1	2	3	4
1. Meat packing	14	5	x	250
2. Milk processing	5	25	12	x
3. Grain grinding	x*	a**	65	x
4. Other food manufacturing	1	8	24	13
5. Primary metal goods	x	x	x	x
6. Concrete & concrete products	x	x	x	x
7. Textiles & apparel	x	x	x	x
8. Printing & engraving	1	3	5	2
9. Building supplies & equipment	3	50	6	19
10. Farm & industry equipment	x	8	3	x
11. Food stores	x	3	x	1
12. Autos, gas & durable equip. repair	51	68	49	28
13. Home furnishings	x	x	x	x
14. Eating & drinking	2	1	a	2
15. Specialty stores	1	x	x	x
16. Farm supplies & feed	3	6	4	9
17. Drug & variety	x	1	a	a
18. Dept., gen. merc., appl. & dry gds.	x	1	x	x
19. Other trades	x	a	a	a
20. Medical, dental & legal	2	1	6	1
21. Amusement & recreation	x	x	x	x
22. Apparel care & repair	1	x	x	1
23. Other services	x	x	x	x
24. Commercial banks	5	11	1	7
25. Real estate & insurance	31	52	10	19
26. Other lending	x	x	x	x
27. Gen. building & subcontracting	3	1	7	x
28. General construction	3	x	x	x
29. Farms & fisheries	1,197	5,000	1,334	1,200
30. Transportation	3	761	15	113
31. Utilities	22	187	25	29
32. Rental & lodging	1	x	x	6
Households (wgs., div. & depr.)	550	1,217	229	1,249
Cache County	14	80	16	89
Rest of world	4,014	5,011	494	3,662
Totals	5,927	12,500	2,305	6,700

*indicates no transactions

**indicates transactions of less than \$500

Table 20. Continued

Industry producing	Industry purchasing			
	5	6	7	8
1. Meat packing	x	x	x	x
2. Milk processing	x	x	x	x
3. Grain grinding	x	x	x	x
4. Other food manufacturing	1	1	2	1
5. Primary metal goods	x	a	x	x
6. Concrete & concrete products	x	x	x	x
7. Textiles & apparel	x	x	x	x
8. Printing & engraving	2	a	3	8
9. Building supplies & equipment	8	3	a	4
10. Farm & industry equipment	17	3	x	x
11. Food stores	x	x	x	x
12. Autos, gas & durable equip. repair	63	57	3	3
13. Home furnishings	x	x	x	x
14. Eating & drinking	1	1	a	a
15. Specialty stores	x	1	x	x
16. Farm supplies & feed	x	x	x	x
17. Drug & variety	x	x	x	x
18. Dept., gen. merc., aprl. & dry gds.	x	x	a	1
19. Other trades	8	1	x	x
20. Medical, dental & legal	7	2	1	1
21. Amusement & recreation	x	x	a	x
22. Apparel care & repair	1	x	x	x
23. Other services	x	x	x	1
24. Commercial banks	2	1	1	1
25. Real estate & insurance	7	5	4	2
26. Other lending	x	x	x	a
27. Gen. building & subcontracting	2	a	4	x
28. General construction	x	x	x	x
29. Farms & fisheries	x	x	x	x
30. Transportation	10	a	25	10
31. Utilities	6	15	12	11
32. Rental & lodging	16	x	4	2
Households (wgs., div. & depr.)	777	393	550	311
Cache County	17	21	1	5
Rest of world	828	380	690	289
Totals	1,773	884	1,300	650

Table 20. Continued

Industry producing	Industry purchasing			
	9	10	11	12
1. Meat packing	x	x	546	x
2. Milk processing	x	x	230	x
3. Grain grinding	x	x	54	x
4. Other food manufacturing	1	1	385	26
5. Primary metal goods	a	x	x	x
6. Concrete & concrete products	10	x	x	x
7. Textiles & apparel	x	x	x	x
8. Printing & engraving	6	1	56	23
9. Building supplies & equipment	1	x	8	8
10. Farm & industry equipment	x	1	x	6
11. Food stores	x	x	450	8
12. Autos, gas & durable equip. repair	40	37	77	1,818
13. Home furnishings	x	x	2	6
14. Eating & drinking	a	a	32	1
15. Specialty stores	a	1	1	3
16. Farm supplies & feed	x	x	72	5
17. Drug & variety	x	x	x	x
18. Dept., gen. merc., apprl. & dry gds.	x	x	a	x
19. Other trades	a	a	a	3
20. Medical, dental & legal	3	3	10	13
21. Amusement & recreation	x	x	x	x
22. Apparel care & repair	x	x	x	2
23. Other services	x	a	x	1
24. Commercial banks	4	1	10	8
25. Real estate & insurance	14	8	34	61
26. Other lending	x	x	2	1
27. Gen. building & subcontracting	x	x	x	1
28. General construction	x	3	x	x
29. Farms & fisheries	x	x	16	x
30. Transportation	3	13	3	3
31. Utilities	13	10	98	118
32. Rental & lodging	x	9	66	90
Households (wgs., div. & depr.)	479	288	881	2,115
Cache County	17	8	41	67
Rest of world	2,330	1,531	7,426	10,013
Totals	2,921	1,915	10,500	14,400

Table 20. Continued

Industry producing	Industry purchasing			
	13	14	15	16
1. Meat packing	x	130	x	3
2. Milk processing	x	194	x	x
3. Grain grinding	x	12	x	19
4. Other food manufacturing	1	47	1	1
5. Primary metal goods	x	x	x	x
6. Concrete & concrete products	x	x	x	x
7. Textiles & apparel	a	x	x	x
8. Printing & engraving	23	2	10	1
9. Building supplies & equipment	5	8	2	28
10. Farm & industry equipment	x	x	x	x
11. Food stores	a	245	x	x
12. Autos, gas & durable equip. repair	35	43	6	99
13. Home furnishings	x	x	a	x
14. Eating & drinking	a	76	a	a
15. Specialty stores	1	x	1	x
16. Farm supplies & feed	a	3	x	26
17. Drug & variety	a	x	a	x
18. Dept., gen. merc., appl. & dry gds.	x	1	x	x
19. Other trades	1	3	2	a
20. Medical, dental & legal	6	9	4	1
21. Amusement & recreation	x	x	x	x
22. Apparel care & repair	x	8	x	x
23. Other services	x	x	x	x
24. Commercial banks	2	6	1	4
25. Real estate & insurance	13	18	6	12
26. Other lending	x	x	x	x
27. Gen. building & subcontracting	30	x	x	x
28. General construction	x	x	x	x
29. Farms & fisheries	x	55	x	559
30. Transportation	7	11	9	5
31. Utilities	45	79	17	40
32. Rental & lodging	21	39	27	5
Households (wgs., div. & depr.)	457	935	391	377
Cache County	12	18	11	35
Rest of world	1,631	848	777	2,612
Totals	2,290	2,790	1,265	3,827

Table 20. Continued

Industry producing	Industry purchasing			
	17	18	19	20
1. Meat packing	x	52	x	6
2. Milk processing	11	33	x	11
3. Grain grinding	x	19	x	2
4. Other food manufacturing	14	22	1	1
5. Primary metal goods	x	x	x	x
6. Concrete & concrete products	x	x	x	x
7. Textiles & apparel	x	x	x	x
8. Printing & engraving	37	91	1	8
9. Building supplies & equipment	a	8	1	x
10. Farm & industry equipment	x	x	x	x
11. Food stores	11	4	x	20
12. Autos, gas & durable equip. repair	2	28	18	4
13. Home furnishings	x	x	x	a
14. Eating & drinking	a	1	1	1
15. Specialty stores	2	3	8	5
16. Farm supplies & feed	x	1	4	1
17. Drug & variety	1	x	x	133
18. Dept., gen. merc., apprl. & dry gds.	x	1	x	3
19. Other trades	x	1	7	x
20. Medical, dental & legal	2	6	2	22
21. Amusement & recreation	x	x	x	x
22. Apparel care & repair	a	7	x	4
23. Other services	10	1	x	1
24. Commercial banks	2	9	1	4
25. Real estate & insurance	8	28	4	21
26. Other lending	x	x	x	2
27. Gen. building & subcontracting	x	x	1	1
28. General construction	x	x	x	x
29. Farms & fisheries	x	x	x	1
30. Transportation	22	191	22	x
31. Utilities	21	131	10	70
32. Rental & lodging	24	211	3	87
Households (wgs., div. & depr.)	462	1,339	203	2,539
Cache County	10	40	2	19
Rest of world	1,346	7,159	461	1,065
Totals	1,985	9,386	750	4,031

Table 20. Continued

Industry producing	Industry purchasing			
	21	22	23	24
1. Meat packing	2	x	x	x
2. Milk processing	1	x	x	x
3. Grain grinding	x	x	x	x
4. Other food manufacturing	5	2	3	1
5. Primary metal goods	x	x	2	x
6. Concrete & concrete products	x	1	12	x
7. Textiles & apparel	x	x	x	x
8. Printing & engraving	3	2	5	10
9. Building supplies & equipment	x	a	12	x
10. Farm & industry equipment	x	x	x	x
11. Food stores	101	x	x	x
12. Autos, gas & durable equip. repair	5	8	8	5
13. Home furnishings	x	x	5	4
14. Eating & drinking	1	a	a	3
15. Specialty stores	x	1	2	1
16. Farm supplies & feed	1	x	x	x
17. Drug & variety	x	x	x	x
18. Dept., gen. merc., appl. & dry gds.	3	1	1	x
19. Other trades	2	a	a	x
20. Medical, dental & legal	2	2	2	3
21. Amusement & recreation	1	x	2	x
22. Apparel care & repair	1	4	3	x
23. Other services	a	x	x	x
24. Commercial banks	1	1	1	x
25. Real estate & insurance	8	5	9	5
26. Other lending	x	x	2	3
27. Gen. building & subcontracting	x	x	5	8
28. General construction	x	x	x	x
29. Farms & fisheries	x	x	x	x
30. Transportation	x	a	6	30
31. Utilities	38	29	40	19
32. Rental & lodging	49	13	19	x
Households (wgs., div. & depr.)	251	287	524	1,005
Cache County	6	7	10	8
Rest of world	369	255	622	1,067
Totals	850	618	295	2,172

Table 20. Continued

Industry producing	Industry purchasing			
	25	26	27	28
1. Meat packing	x	a	x	x
2. Milk processing	x	x	x	x
3. Grain grinding	x	x	x	x
4. Other food manufacturing	1	1	1	1
5. Primary metal goods	x	x	13	x
6. Concrete & concrete products	x	x	446	16
7. Textiles & apparel	x	x	60	x
8. Printing & engraving	16	8	9	3
9. Building supplies & equipment	x	x	1,359	130
10. Farm & industry equipment	x	x	x	17
11. Food stores	x	x	x	x
12. Autos, gas & durable equip. repair	34	3	105	236
13. Home furnishings	x	x	111	x
14. Eating & drinking	3	1	3	1
15. Specialty stores	7	6	3	x
16. Farm supplies & feed	x	x	x	x
17. Drug & variety	x	x	1	x
18. Dept., gen. merc., appl. & dry gds.	x	x	49	x
19. Other trades	x	x	x	x
20. Medical, dental & legal	x	4	15	8
21. Amusement & recreation	x	x	x	x
22. Apparel care & repair	x	x	x	x
23. Other services	x	x	x	x
24. Commercial banks	4	2	82	7
25. Real estate & insurance	2	3	27	37
26. Other lending	1	1	38	x
27. Gen. building & subcontracting	x	a	2,338	23
28. General construction	x	x	57	x
29. Farms & fisheries	x	x	x	x
30. Transportation	1	x	36	x
31. Utilities	36	14	76	18
32. Rental & lodging	19	8	73	x
Households (wgs., div. & depr.)	658	1,063	3,950	810
Cache County	2	2	46	22
Rest of world	2,755	552	6,388	5,871
Totals	3,539	1,668	15,286	7,200

Table 20. Continued

Industry producing	Industry purchasing			
	29	30	31	32
1. Meat packing	x	11	x	4
2. Milk processing	x	5	x	1
3. Grain grinding	1,069	x	x	a
4. Other food manufacturing	a	2	1	1
5. Primary metal goods	x	x	x	x
6. Concrete & concrete products	7	x	1	x
7. Textiles & apparel	x	x	x	x
8. Printing & engraving	x	3	8	5
9. Building supplies & equipment	46	8	9	21
10. Farm & industry equipment	153	x	x	x
11. Food stores	x	a	x	92
12. Autos, gas & durable equip. repair	890	28	26	17
13. Home furnishings	x	x	2	50
14. Eating & drinking	a	1	3	x
15. Specialty stores	x	x	2	3
16. Farm supplies & feed	1,500	x	x	x
17. Drug & variety	a	x	x	1
18. Dept., gen. merc., apprl. & dry gds.	124	x	x	4
19. Other trades	a	x	x	x
20. Medical, dental & legal	125	2	6	5
21. Amusement & recreation	x	x	x	x
22. Apparel care & repair	x	x	x	26
23. Other services	x	x	x	x
24. Commercial banks	465	3	4	40
25. Real estate & insurance	95	15	7	40
26. Other lending	260	x	1	134
27. Gen. building & subcontracting	x	5	11	115
28. General construction	x	x	x	29
29. Farms & fisheries	3,282	x	x	6
30. Transportation	609	1	4	9
31. Utilities	201	15	292	479
32. Rental & lodging	x	19	20	13
Households (wgs., div. & depr.)	7,267	916	1,059	651
Cache County	615	6	268	238
Rest of world	1,549	1,760	3,120	1,399
Totals	18,257	2,800	4,844	3,383

Table 20. Continued

Industry producing	House- holds	USU students	Cache County	USU
1. Meat packing	197	17	16	4
2. Milk processing	662	58	21	10
3. Grain grinding	29	2	2	a
4. Other food manufacturing	121	10	a	13
5. Primary metal goods	92	x	2	2
6. Concrete & concrete products	x	x	1	27
7. Textiles & apparel	36	x	x	a
8. Printing & engraving	179	10	31	49
9. Building supplies & equipment	30	x	24	116
10. Farm & industry equipment	18	x	9	7
11. Food stores	7,270	850	41	38
12. Autos, gas & durable equip. repair	7,725	743	204	93
13. Home furnishings	1,669	189	35	7
14. Eating & drinking	1,184	879	2	2
15. Specialty stores	779	239	a	11
16. Farm supplies & feed	234	x	2	47
17. Drug & variety	1,529	111	1	6
18. Dept., gen. merc., apprl. & dry gds.	7,663	538	9	17
19. Other trades	243	18	3	6
20. Medical, dental & legal	2,729	340	12	8
21. Amusement & recreation	353	387	4	1
22. Apparel care & repair	250	285	3	19
23. Other services	669	278	21	209
24. Commercial banks	269	47	16	a
25. Real estate & insurance	1,669	33	109	5
26. Other lending	767	12	17	a
27. Gen. building & subcontracting	x	x	x	38
28. General construction	x	x	x	5
29. Farms & fisheries	346	x	x	13
30. Transportation	446	76	3	141
31. Utilities	2,279	121	13	199
32. Rental & lodging	784	1,387	126	1
Households (wgs., div. & depr.)	104		3,590	5,502
Cache County	749	86	93	x
Rest of world		13,515	1,030	8,338
Totals		61,305	5,440	14,934

Table 20. Continued

Industry producing	Capital	Rest of world	Total
1. Meat packing	x	4,670	5,927
2. Milk processing	x	11,221	12,500
3. Grain grinding	x	1,032	2,305
4. Other food manufacturing	x	5,985	6,700
5. Primary metal goods	x	1,662	1,773
6. Concrete & concrete products	158	205	884
7. Textiles & apparel	x	1,204	1,300
8. Printing & engraving	x	26	650
9. Building supplies & equipment	694	310	2,921
10. Farm & industry equipment	990	683	1,915
11. Food stores	x	1,366	10,500
12. Autos, gas & durable equip. repair	398	1,343	14,400
13. Home furnishings	5	205	2,290
14. Eating & drinking	x	588	2,790
15. Specialty stores	x	184	1,265
16. Farm supplies & feed	x	1,909	3,827
17. Drug & variety	x	201	1,985
18. Dept., gen. merc., appl. & dry gds.	x	970	9,386
19. Other trades	x	452	750
20. Medical, dental & legal	x	666	4,031
21. Amusement & recreation	x	102	850
22. Apparel care & repair	x	3	618
23. Other services	x	104	1,295
24. Commercial banks	x	1,149	2,172
25. Real estate & insurance	x	1,113	3,539
26. Other lending	x	427	1,668
27. Gen. building & subcontracting	6,158	6,535	15,286
28. General construction	1,935	5,168	7,200
29. Farms & fisheries	x	5,248	18,257
30. Transportation	x	212	2,800
31. Utilities	x	16	4,844
32. Rental & lodging	x	241	3,383
Households		17,926	61,305
Cache County		2,659	5,440

Table 21. Direct requirements per dollar of output, Cache County, 1962

Industry producing	Direct purchases per dollar of output			
	1	2	3	4
1. Meat packing	.002362	.000400	x	.037313
2. Milk processing	.000844	.002000	.005206	x
3. Grain grinding	x	x	.028200	x
4. Other food manufacturing	.000169	.000640	.010412	.001940
5. Primary metal goods	x	x	x	x
6. Concrete & concrete products	x	x	x	x
7. Textiles & apparel	x	x	x	x
8. Printing & engraving	.000169	.000240	.002169	.000299
9. Building supplies & equipment	.000506	.004000	.002603	.002836
10. Farm & industry equipment	x	.000640	.001302	x
11. Food stores	x	.000240	x	.000149
12. Autos, gas & durable equip. repair	.008605	.005440	.021258	.004179
13. Home furnishings	x	x	x	x
14. Eating & drinking	.000337	.000080	x	.000299
15. Specialty stores	.000169	x	x	x
16. Farm supplies & feed	.000506	.000480	.001735	.001343
17. Drug & variety	x	.000080	x	x
18. Dept., gen. merc., appl. & dry gds.	x	.000080	x	x
19. Other trades	x	x	x	x
20. Medical, dental & legal	.000337	.000080	.002603	.000149
21. Amusement & recreation	x	x	x	x
22. Apparel care & repair	.000169	x	x	.000149
23. Other services	x	x	x	x
24. Commercial banks	.000844	.000880	.000434	.001045
25. Real estate & insurance	.005230	.004160	.004338	.002836
26. Other lending	x	x	x	x
27. Gen. building & subcontracting	.000506	.000080	.003037	x
28. General construction	.000506	x	x	x
29. Farms & fisheries	.201957	.400000	.578742	.179104
30. Transportation	.000506	.060880	.006508	.016866
31. Utilities	.003712	.014960	.010846	.004328
32. Rental & lodging	.000169	x	x	.000896
Households (wgs., div. & depr.)	.092796	.097360	.099349	.186418
Cache County	.002362	.006400	.006941	.013284
Rest of world	.677240	.400880	.214317	.546567

Table 21. Continued

Industry producing	Direct purchases per dollar of output			
	5	6	7	8
1. Meat packing	x	x	x	x
2. Milk processing	x	x	x	x
3. Grain grinding	x	x	x	x
4. Other food manufacturing	.000564	.001131	.001538	.001538
5. Primary metal goods	x	x	x	x
6. Concrete & concrete products	x	x	x	x
7. Textiles & apparel	x	x	x	x
8. Printing & engraving	.001128	x	.002308	.012308
9. Building supplies & equipment	.004512	.003394	x	.006154
10. Farm & industry equipment	.009588	.003394	x	x
11. Food stores	x	x	x	x
12. Autos, gas & durable equip. repair	.035533	.064480	.002308	.004615
13. Home furnishings	x	x	x	x
14. Eating & drinking	.000564	.001131	x	x
15. Specialty stores	x	.001131	x	x
16. Farm supplies & feed	x	x	x	x
17. Drug & variety	x	x	x	x
18. Dept., gen. merc., appl. & dry gds.	x	x	x	.001538
19. Other trades	.004512	.001131	x	x
20. Medical, dental & legal	.003948	.002262	.000769	.001538
21. Amusement & recreation	x	x	x	x
22. Apparel care & repair	.000564	x	x	x
23. Other services	x	x	x	.001538
24. Commercial banks	.001128	.001131	.000769	.001538
25. Real estate & insurance	.003948	.005656	.003077	.003077
26. Other lending	x	x	x	x
27. Gen. building & subcontracting	.001128	x	.003077	x
28. General construction	x	x	x	x
29. Farms & fisheries	x	x	x	x
30. Transportation	.005640	x	.019231	.015385
31. Utilities	.003384	.016968	.009231	.016923
32. Rental & lodging	.009024	x	.003077	.003077
Households (wgs., div. & depr.)	.438240	.444570	.423077	.478462
Cache County	.009588	.023756	.000769	.007692
Rest of world	.467005	.429864	.530769	.444615

Table 21. Continued

Industry producing	Direct purchases per dollar of output			
	9	10	11	12
1. Meat packing	x	x	.052000	x
2. Milk processing	x	x	.021905	x
3. Grain grinding	x	x	.005143	x
4. Other food manufacturing	.000342	.000522	.036667	.001806
5. Primary metal goods	x	x	x	x
6. Concrete & concrete products	.003423	x	x	x
7. Textiles & apparel	x	x	x	x
8. Printing & engraving	.002054	.000522	.005333	.001597
9. Building supplies & equipment	.000342	x	.000762	.000556
10. Farm & industry equipment	x	.000522	x	.000417
11. Food stores	x	x	.042857	.000556
12. Autos, gas & durable equip. repair	.013694	.019321	.007333	.000417
13. Home furnishings	x	x	.000190	.000069
14. Eating & drinking	x	x	.003048	.000208
15. Specialty stores	x	.000522	.000095	.000347
16. Farm supplies & feed	x	x	.006857	x
17. Drug & variety	x	x	x	x
18. Dept., gen. merc., appl. & dry gds.	x	x	x	x
19. Other trades	x	x	x	.000208
20. Medical, dental & legal	.001027	.001567	.000952	.000903
21. Amusement & recreation	x	x	x	x
22. Apparel care & repair	x	x	x	.000139
23. Other services	x	x	x	.000069
24. Commercial banks	.001369	.000522	.000952	.000556
25. Real estate & insurance	.004793	.004178	.003238	.004236
26. Other lending	x	x	.000190	.000069
27. Gen. building & subcontracting	x	x	x	.000069
28. General construction	x	.001567	x	x
29. Farms & fisheries	x	x	.001524	x
30. Transportation	.001027	.006789	.000286	.000208
31. Utilities	.004451	.005222	.009333	.008194
32. Rental & lodging	x	.004700	.006286	.006250
Households (wgs., div. & depr.)	.163985	.150392	.083905	.146875
Cache County	.005820	.004178	.003905	.004653
Rest of world	.797672	.799478	.707238	.695347

Table 21. Continued

Industry producing	Direct purchases per dollar of output			
	13	14	15	16
1. Meat packing	x	.046595	x	.000784
2. Milk processing	x	.069534	x	x
3. Grain grinding	x	.004301	x	.004965
4. Other food manufacturing	.000437	.016846	.000791	.000261
5. Primary metal goods	x	x	x	x
6. Concrete & concrete products	x	x	x	x
7. Textiles & apparel	x	x	x	x
8. Printing & engraving	.010044	.000717	.007905	.000261
9. Building supplies & equipment	.002183	.002867	.001581	.007316
10. Farm & industry equipment	x	x	x	x
11. Food stores	x	.087814	x	x
12. Autos, gas & durable equip. repair	.015284	.015412	.004743	.025869
13. Home furnishings	x	x	x	x
14. Eating & drinking	x	.027240	x	x
15. Specialty stores	.000437	x	.000791	x
16. Farm supplies & feed	x	.001075	x	.006794
17. Drug & variety	x	x	x	x
18. Dept., gen. merc., appl. & dry gds.	x	.000358	x	x
19. Other trades	.000437	.001075	.001581	x
20. Medical, dental & legal	.002620	.003226	.003162	.000261
21. Amusement & recreation	x	x	x	x
22. Apparel care & repair	x	.002867	x	x
23. Other services	x	x	x	x
24. Commercial banks	.000873	.002151	.000791	.001045
25. Real estate & insurance	.005677	.006452	.004743	.003136
26. Other lending	x	x	x	x
27. Gen. building & subcontracting	.013100	x	x	x
28. General construction	x	x	x	x
29. Farms & fisheries	x	.019713	x	.146067
30. Transportation	.003057	.003943	.007115	.001307
31. Utilities	.019651	.028315	.013439	.010452
32. Rental & lodging	.009170	.013978	.021344	.001307
Households (wgs., div. & depr.)	.199563	.335125	.309091	.098511
Cache County	.005240	.006452	.008696	.009146
Rest of world	.712227	.303943	.614229	.682519

Table 21. Continued

Industry producing	Direct purchases per dollar of output			
	17	18	19	20
1. Meat packing	x	.005540	x	.001488
2. Milk processing	.005542	.003516	x	.002729
3. Grain grinding	x	.002024	x	.000496
4. Other food manufacturing	.007053	.002344	.001333	.000248
5. Primary metal goods	x	x	x	x
6. Concrete & concrete products	x	x	x	x
7. Textiles & apparel	x	x	x	x
8. Printing & engraving	.018640	.009695	.001333	.001985
9. Building supplies & equipment	x	.000852	.001333	x
10. Farm & industry equipment	x	x	x	x
11. Food stores	.005542	.000426	x	.004962
12. Autos, gas & durable equip. repair	.001008	.002983	.024000	.000992
13. Home furnishings	x	x	x	x
14. Eating & drinking	x	.000107	.001333	.000248
15. Specialty stores	.001008	.000320	.010667	.001240
16. Farm supplies & feed	x	.000107	.005333	.000248
17. Drug & variety	.000504	x	x	.032994
18. Dept., gen. merc., appl. & dry gds.	x	.000107	x	.000744
19. Other trades	x	.000107	.009333	x
20. Medical, dental & legal	.001008	.000640	.002667	.005458
21. Amusement & recreation	x	x	x	x
22. Apparel care & repair	x	.000746	x	.000992
23. Other services	.005038	.000107	x	.000248
24. Commercial banks	.001008	.000959	.001333	.000992
25. Real estate & insurance	.004030	.002983	.005333	.005210
26. Other lending	x	x	x	.000496
27. Gen. building & subcontracting	x	x	.001333	.000248
28. General construction	x	x	x	x
29. Farms & fisheries	x	x	x	.000248
30. Transportation	.011083	.020349	.029333	x
31. Utilities	.010579	.013957	.013333	.017365
32. Rental & lodging	.012091	.022480	.004000	.021583
Households (wgs., div. & depr.)	.232746	.142660	.270667	.629869
Cache County	.005038	.004262	.002667	.004713
Rest of world	.678086	.762732	.614667	.264202

Table 21. Continued

Industry producing	Direct purchases per dollar of output			
	21	22	23	24
1. Meat packing	.002353	x	x	x
2. Milk processing	.001176	x	x	x
3. Grain grinding	x	x	x	x
4. Other food manufacturing	.005882	.003236	.002317	.000460
5. Primary metal goods	x	x	.001544	x
6. Concrete & concrete products	x	.001618	.009266	x
7. Textiles & apparel	x	x	x	x
8. Printing & engraving	.003529	.003236	.003861	.004604
9. Building supplies & equipment	x	x	.009266	x
10. Farm & industry equipment	x	x	x	x
11. Food stores	.118824	x	x	x
12. Autos, gas & durable equip. repair	.005882	.012945	.006178	.002302
13. Home furnishings	x	x	.003861	.001842
14. Eating & drinking	.001176	x	x	.001381
15. Specialty stores	x	.001618	.001544	.000460
16. Farm supplies & feed	.001176	x	x	x
17. Drug & variety	x	x	x	x
18. Dept., gen. merc., appl. & dry gds.	.003529	.001618	.000772	x
19. Other trades	.002353	x	x	x
20. Medical, dental & legal	.002353	.003236	.001544	.001381
21. Amusement & recreation	.001176	x	.001544	x
22. Apparel care & repair	.001176	.006472	.002317	x
23. Other services	x	x	x	x
24. Commercial banks	.001176	.001618	.000772	x
25. Real estate & insurance	.009412	.008091	.006950	.002302
26. Other lending	x	x	.001544	.001381
27. Gen. building & subcontracting	x	x	.003861	.003683
28. General construction	x	x	x	x
29. Farms & fisheries	x	x	x	x
30. Transportation	x	x	.004633	.013812
31. Utilities	.044706	.046926	.030888	.008748
32. Rental & lodging	.057647	.021036	.014672	x
Households (wgs., div. & depr.)	.295294	.464401	.404633	.462707
Cache County	.007059	.011327	.007722	.003683
Rest of world	.434118	.412621	.480309	.491252

Table 21. Continued

Industry producing	Direct purchases per dollar of output			
	25	26	27	28
1. Meat packing	x	x	x	x
2. Milk processing	x	x	x	x
3. Grain grinding	x	x	x	x
4. Other food manufacturing	.000283	.000600	.000065	.000139
5. Primary metal goods	x	x	.000850	x
6. Concrete & concrete products	x	x	.029177	.002222
7. Textiles & apparel	x	x	.003925	x
8. Printing & engraving	.004521	.004796	.000589	.000417
9. Building supplies & equipment	x	x	.088905	.018056
10. Farm & industry equipment	x	x	x	.002361
11. Food stores	x	x	x	x
12. Autos, gas & durable equip. repair	.009607	.001799	.006869	.032778
13. Home furnishings	x	x	.007262	x
14. Eating & drinking	.000848	.000600	.000196	.000139
15. Specialty stores	.001978	.003597	.000196	x
16. Farm supplies & feed	x	x	x	x
17. Drug & variety	x	x	.000065	x
18. Dept., gen. merc., appl. & dry gds.	x	x	.003206	x
19. Other trades	x	x	x	x
20. Medical, dental & legal	x	.002398	.000981	.001111
21. Amusement & recreation	x	x	x	x
22. Apparel care & repair	x	x	x	x
23. Other services	x	x	x	x
24. Commercial banks	.001130	.001199	.005364	.000972
25. Real estate & insurance	.000565	.001799	.001766	.005139
26. Other lending	.000283	.000600	.002486	x
27. Gen. building & subcontracting	x	x	.152950	.003194
28. General construction	x	x	.003729	x
29. Farms & fisheries	x	x	x	x
30. Transportation	.000283	x	.002355	x
31. Utilities	.010172	.008393	.004972	.002500
32. Rental & lodging	.005369	.004796	.004776	x
Households (wgs., div. & depr.)	.185928	.637290	.258406	.112500
Cache County	.000565	.001199	.003009	.003056
Rest of world	.778468	.330935	.417899	.815417

Table 21. Continued

Industry producing	Direct purchases per dollar of output			
	29	30	31	32
1. Meat packing	x	.003929	x	.001182
2. Milk processing	x	.001786	x	.000296
3. Grain grinding	.058553	x	x	x
4. Other food manufacturing	x	.000714	.000206	.000296
5. Primary metal goods	x	x	x	x
6. Concrete & concrete products	.000383	x	.000206	x
7. Textiles & apparel	x	x	x	x
8. Printing & engraving	x	.001071	.001652	.001478
9. Building supplies & equipment	.002520	.002857	.001858	.006208
10. Farm & industry equipment	.008380	x	x	x
11. Food stores	x	x	x	.027195
12. Autos, gas & durable equip. repair	.048748	.010000	.005367	.005025
13. Home furnishings	x	x	.000413	.014780
14. Eating & drinking	x	.000357	.000619	x
15. Specialty stores	x	x	.000413	.000887
16. Farm supplies & feed	.082160	x	x	x
17. Drug & variety	x	x	x	.000296
18. Dept., gen. merc., aprpl. & dry gds.	.006792	x	x	.001182
19. Other trades	x	x	x	x
20. Medical, dental & legal	.006847	.000714	.001239	.001478
21. Amusement & recreation	x	x	x	x
22. Apparel care & repair	x	x	x	.007685
23. Other services	x	x	x	x
24. Commercial banks	.025470	.001071	.000826	.011824
25. Real estate & insurance	.005203	.005357	.001445	.011824
26. Other lending	.014241	x	.000206	.039610
27. Gen. building & subcontracting	x	.001786	.002271	.033993
28. General construction	x	x	x	.008572
29. Farms & fisheries	.179767	x	x	.001774
30. Transportation	.033357	.000357	.000826	.002660
31. Utilities	.011009	.005357	.060281	.141590
32. Rental & lodging	x	.006786	.004129	.003843
Households (wgs., div. & depr.)	.398039	.327143	.218621	.192433
Cache County	.033686	.002143	.055326	.070352
Rest of world	.084844	.628571	.644096	.413538

Table 22. Direct and indirect trade coefficients, Cache County, 1962

Industry producing	Direct plus indirect requirements per dollar of final demand			
	1	2	3	4
1. Meat packing	1.002470	.000844	.000672	.037644
2. Milk processing	.000990	1.002350	.005728	.000196
3. Grain grinding	.015945	.031522	1.076160	.014724
4. Other food manufacturing	.000424	.001161	.011463	1.002190
5. Primary metal goods	.000000	.000000	.000004	.000000
6. Concrete & concrete products	.000131	.000241	.000444	.000115
7. Textiles & apparel	.000003	.000002	.000016	.000000
8. Printing & engraving	.000398	.000722	.002874	.000532
9. Building supplies & equipment	.001524	.006084	.005886	.003807
10. Farm & industry equipment	.002236	.005054	.007949	.002061
11. Food stores	.000081	.000347	.000140	.000252
12. Autos, gas & durable equip. repair	.025982	.038742	.072681	.020256
13. Home furnishings	.000043	.000075	.000129	.000048
14. Eating & drinking	.000379	.000165	.000086	.000356
15. Specialty stores	.000215	.000078	.000114	.000046
16. Farm supplies & feed	.022276	.043514	.066167	.021464
17. Drug & variety	.000075	.000210	.000278	.000065
18. Dept., gen. merc., aprpl. & dry gds.	.001790	.003615	.005301	.001652
19. Other trades	.000007	.000009	.000017	.000005
20. Medical, dental & legal	.002268	.003932	.008394	.001956
21. Amusement & recreation	.000000	.000000	.000000	.000000
22. Apparel care & repair	.000184	.000022	.000035	.000175
23. Other services	.000004	.000006	.000013	.000003
24. Commercial banks	.007632	.014352	.020524	.007368
25. Real estate & insurance	.007009	.007931	.009735	.004760
26. Other lending	.003787	.007481	.011176	.003527
27. Gen. building & subcontract- ing	.000763	.000557	.004151	.000245
28. General construction	.000519	.000021	.000040	.000035
29. Farms & fisheries	.262632	.519274	.776573	.242425
30. Transportation	.009658	.079018	.034101	.025335
31. Utilities	.008174	.024375	.024234	.008831
32. Rental & lodging	.000639	.001225	.001370	.001420
Totals	1.378238	1.792929	2.146455	1.401493

Table 22. Continued

Industry producing	Direct plus indirect requirements per dollar of final demand			
	5	6	7	8
1. Meat packing	.000115	.000119	.000147	.000144
2. Milk processing	.000076	.000095	.000042	.000044
3. Grain grinding	.000024	.000034	.000028	.000032
4. Other food manufacturing	.000694	.001309	.001574	.001605
5. Primary metal goods	1.000000	.000000	.000003	.000003
6. Concrete & concrete products	.000071	1.000020	.000116	.000048
7. Textiles & apparel	.000007	.000000	1.000010	.000000
8. Printing & engraving	.001309	.000217	.002413	1.012590
9. Building supplies & equipment	.004804	.003500	.000462	.006383
10. Farm & industry equipment	.009613	.003431	.000006	.000007
11. Food stores	.000374	.000185	.000104	.000114
12. Autos, gas & durable equip. repair	.041378	.074224	.003087	.005872
13. Home furnishings	.000177	.000052	.000085	.000072
14. Eating & drinking	.000604	.001190	.000020	.000025
15. Specialty stores	.000091	.001186	.000018	.000025
16. Farm supplies & feed	.000068	.000073	.000040	.000043
17. Drug & variety	.000138	.000079	.000028	.000055
18. Dept., gen. merc., aprl. & dry gds.	.000025	.000007	.000024	.001568
19. Other trades	.004564	.001160	.000000	.000002
20. Medical, dental & legal	.004080	.002393	.000822	.001629
21. Amusement & recreation	.000000	.000000	.000000	.000002
22. Apparel care & repair	.000654	.000022	.000028	.000034
23. Other services	.000007	.000006	.000004	.001559
24. Commercial banks	.001326	.001231	.000883	.001666
25. Real estate & insurance	.004418	.006086	.003284	.003365
26. Other lending	.000398	.000048	.000154	.000155
27. Gen. building & subcontract- ing	.001766	.000095	.003842	.000240
28. General construction	.000104	.000012	.000043	.000031
29. Farms & fisheries	.000283	.000429	.000435	.000446
30. Transportation	.005961	.000173	.019362	.015727
31. Utilities	.005828	.019061	.010614	.019110
32. Rental & lodging	.009605	.000699	.003351	.003470
Totals	1.098562	1.117136	1.051029	1.076066

Table 22. Continued

Industry producing	Direct plus indirect requirements per dollar of final demand			
	9	10	11	12
1. Meat packing	.000022	.000067	.056131	.000142
2. Milk processing	.000007	.000023	.023280	.000033
3. Grain grinding	.000007	.000013	.008218	.000047
4. Other food manufacturing	.000385	.000583	.038618	.002119
5. Primary metal goods	.000000	.000000	.000000	.000000
6. Concrete & concrete products	.003426	.000013	.000036	.000019
7. Textiles & apparel	.000000	.000000	.000002	.000002
8. Printing & engraving	.002149	.000627	.005804	.001930
9. Building supplies & equipment	1.000390	.000134	.001410	.000771
10. Farm & industry equipment	.000019	1.000530	.000395	.000483
11. Food stores	.000022	.000166	1.045300	.000888
12. Autos, gas & durable equip. repair	.016057	.022416	.012966	1.144790
13. Home furnishings	.000014	.000089	.000320	.000595
14. Eating & drinking	.000016	.000015	.003328	.000098
15. Specialty stores	.000021	.000547	.000140	.000266
16. Farm supplies & feed	.000015	.000025	.010921	.000465
17. Drug & variety	.000035	.000055	.000051	.000038
18. Dept., gen. merc., aprpl. & dry gds.	.000005	.000010	.000317	.000019
19. Other trades	.000007	.000006	.000007	.000241
20. Medical, dental & legal	.001069	.001626	.001422	.001082
21. Amusement & recreation	.000000	.000000	.000000	.000000
22. Apparel care & repair	.000005	.000044	.000082	.000219
23. Other services	.000005	.000003	.000010	.000082
24. Commercial banks	.001403	.000624	.002358	.000769
25. Real estate & insurance	.004919	.004413	.004430	.005002
26. Other lending	.000015	.000208	.001103	.000385
27. Gen. building & subcontract- ing	.000032	.000246	.000406	.000432
28. General construction	.000002	.001612	.000090	.000065
29. Farms & fisheries	.000102	.000180	.043387	.000650
30. Transportation	.001101	.006862	.004095	.000387
31. Utilities	.005106	.006674	.013403	.011286
32. Rental & lodging	.000188	.005015	.006964	.007323
Totals	1.036544	1.052826	1.284994	1.180628

Table 22. Continued

Industry producing	Direct plus indirect requirements per dollar of final demand			
	13	14	15	16
1. Meat packing	.000066	.053880	.000127	.000875
2. Milk processing	.000026	.073874	.000046	.000118
3. Grain grinding	.000014	.010394	.000025	.016952
4. Other food manufacturing	.000517	.021105	.000864	.000548
5. Primary metal goods	.000014	.000000	.000000	.000000
6. Concrete & concrete products	.000483	.000086	.000039	.000112
7. Textiles & apparel	.000063	.000003	.000004	.000000
8. Printing & engraving	.010325	.001578	.008148	.000513
9. Building supplies & equipment	.003796	.004031	.001922	.008135
10. Farm & industry equipment	.000011	.000809	.000006	.001671
11. Food stores	.000303	.094856	.000642	.000090
12. Autos, gas & durable equip. repair	.018121	.026224	.005994	.042020
13. Home furnishings	1.000280	.000293	.000341	.000064
14. Eating & drinking	.000031	1.028380	.000027	.000031
15. Specialty stores	.000486	.000103	1.000850	.000043
16. Farm supplies & feed	.000027	.009156	.000044	1.022980
17. Drug & variety	.000094	.000150	.000115	.000058
18. Dept., gen. merc., appl. & dry gds.	.000082	.001002	.000046	.001326
19. Other trades	.000446	.001122	.001599	.000009
20. Medical, dental & legal	.002742	.004227	.003276	.001747
21. Amusement & recreation	.000000	.000000	.000000	.000000
22. Apparel care & repair	.000080	.003110	.000173	.000023
23. Other services	.000018	.000006	.000014	.000005
24. Commercial banks	.001144	.004967	.001119	.006125
25. Real estate & insurance	.006034	.008648	.005177	.004650
26. Other lending	.000436	.001916	.000878	.002862
27. Gen. building & subcontract- ing	.015935	.000867	.000952	.000224
28. General construction	.000142	.000167	.000190	.000020
29. Farms & fisheries	.000180	.087792	.000317	.194530
30. Transportation	.003363	.012217	.007423	.008125
31. Utilities	.023009	.037823	.018042	.014802
32. Rental & lodging	.009663	.015733	.021762	.001844
Totals	1.097931	1.504519	1.080162	1.330502

Table 22. Continued

Industry producing	Direct plus indirect requirements per dollar of final demand			
	17	18	19	20
1. Meat packing	.000666	.005825	.000270	.001895
2. Milk processing	.005726	.003623	.000170	.003105
3. Grain grinding	.000333	.002432	.000135	.000740
4. Other food manufacturing	.007370	.002471	.001480	.000754
5. Primary metal goods	.000008	.000001	.000002	.000002
6. Concrete & concrete products	.000071	.000044	.000066	.000051
7. Textiles & apparel	.000002	.000004	.000007	.000005
8. Printing & engraving	.019045	.009972	.001616	.002829
9. Building supplies & equipment	.000428	.001304	.001760	.000363
10. Farm & industry equipment	.000047	.000055	.000026	.000031
11. Food stores	.006165	.001119	.000301	.006074
12. Autos, gas & durable equip. repair	.002104	.004564	.028684	.001917
13. Home furnishings	.000220	.000360	.000107	.000357
14. Eating & drinking	.000043	.000143	.001417	.000300
15. Specialty stores	.001049	.000366	.010811	.001333
16. Farm supplies & feed	.000465	.000595	.005570	.000559
17. Drug & variety	1.000540	.000034	.000095	.033204
18. Dept., gen. merc., appl. & dry gds.	.000085	1.000190	.000028	.000807
19. Other trades	.000002	.000110	1.009450	.000003
20. Medical, dental & legal	.001150	.000798	.002844	1.005640
21. Amusement & recreation	.000008	.000000	.000000	.000000
22. Apparel care & repair	.000112	.000932	.000049	.001181
23. Other services	.005070	.000123	.000006	.000421
24. Commercial banks	.001374	.001460	.001550	.001435
25. Real estate & insurance	.004490	.003578	.005881	.005799
26. Other lending	.000585	.001000	.000231	.001448
27. Gen. building & subcontract- ing	.000603	.001043	.001903	.001278
28. General construction	.000110	.000204	.000049	.000198
29. Farms & fisheries	.004923	.005619	.001605	.003139
30. Transportation	.012130	.021095	.029889	.000861
31. Utilities	.014133	.019015	.015959	.022809
32. Rental & lodging	.012563	.022946	.004878	.022483
Totals	1.101620	1.111025	1.126842	1.121021

Table 22. Continued

Industry producing	Direct plus indirect requirements per dollar of final demand			
	21	22	23	24
1. Meat packing	.009517	.000204	.000176	.000152
2. Milk processing	.004120	.000042	.000041	.000133
3. Grain grinding	.001207	.000065	.000047	.000025
4. Other food manufacturing	.010662	.003355	.002427	.000520
5. Primary metal goods	.000002	.000000	.001549	.000004
6. Concrete & concrete products	.000098	.001672	.009469	.000134
7. Textiles & apparel	.000010	.000004	.000021	.000017
8. Printing & engraving	.004613	.003550	.004174	.004750
9. Building supplies & equipment	.000961	.000388	.010017	.000499
10. Farm & industry equipment	.000081	.000020	.000057	.000004
11. Food stores	.126155	.000653	.000648	.000150
12. Autos, gas & durable equip. repair	.009642	.015748	.008711	.003051
13. Home furnishings	.000953	.000363	.004147	.001884
14. Eating & drinking	.001671	.000053	.000053	.001436
15. Specialty stores	.000158	.001704	.001619	.000479
16. Farm supplies & feed	.002797	.000092	.000069	.000028
17. Drug & variety	.000110	.000119	.000062	.000048
18. Dept., gen. merc., appl. & dry gds.	.003682	.001672	.000829	.000025
19. Other trades	.002383	.000008	.000028	.000004
20. Medical, dental & legal	.002771	.003421	.001723	.001444
21. Amusement & recreation	1.001180	.000000	.001546	.000000
22. Apparel care & repair	.001659	1.006690	.002458	.000008
23. Other services	.000009	.000008	1.000010	.000008
24. Commercial banks	.002351	.002000	.001100	1.000080
25. Real estate & insurance	.010933	.008638	.007481	.002472
26. Other lending	.002525	.000899	.002189	.001412
27. Gen. building & subcontract- ing	.002586	.001039	.005355	.004446
28. General construction	.000524	.000191	.000152	.000019
29. Farms & fisheries	.008434	.000915	.000675	.000274
30. Transportation	.001244	.000333	.004931	.013955
31. Utilities	.058782	.054077	.036107	.009742
32. Rental & lodging	.059384	.021812	.015349	.000293
Totals	1.331204	1.129735	1.123220	1.047496

Table 22. Continued

Industry producing	Direct plus indirect requirements per dollar of final demand			
	25	26	27	28
1. Meat packing	.000076	.000075	.000077	.000021
2. Milk processing	.000070	.000058	.000052	.000016
3. Grain grinding	.000016	.000019	.000019	.000006
4. Other food manufacturing	.000343	.000641	.000228	.000228
5. Primary metal goods	.000000	.000000	.001004	.000003
6. Concrete & concrete products	.000011	.000010	.034832	.002397
7. Textiles & apparel	.000001	.000000	.004636	.000015
8. Printing & engraving	.004656	.004942	.001184	.000567
9. Building supplies & equipment	.000126	.000115	.105343	.018444
10. Farm & industry equipment	.000006	.000003	.000145	.002387
11. Food stores	.000247	.000216	.000219	.000053
12. Autos, gas & durable equip. repair	.011195	.002266	.014110	.038166
13. Home furnishings	.000097	.000084	.008688	.000052
14. Eating & drinking	.000884	.000629	.000303	.000158
15. Specialty stores	.001996	.003620	.000312	.000027
16. Farm supplies & feed	.000022	.000024	.000019	.000021
17. Drug & variety	.000004	.000083	.000126	.000040
18. Dept., gen. merc., aprl. & dry gds.	.000016	.000018	.003798	.000015
19. Other trades	.000007	.000007	.000052	.000011
20. Medical, dental & legal	.000056	.002461	.001449	.001192
21. Amusement & recreation	.000000	.000000	.000000	.000000
22. Apparel care & repair	.000048	.000044	.000055	.000010
23. Other services	.000008	.000009	.000004	.000004
24. Commercial banks	.001232	.001294	.006645	.001061
25. Real estate & insurance	1.000740	.001945	.003093	.005446
26. Other lending	.000513	1.000810	.003194	.000031
27. Gen. building & subcontract- ing	.000266	.000238	1.181040	.003803
28. General construction	.000049	.000044	.004457	1.000020
29. Farms & fisheries	.000176	.000232	.000132	.000076
30. Transportation	.000435	.000170	.003246	.000090
31. Utilities	.011947	.009975	.008932	.003322
32. Rental & lodging	.005595	.005047	.006082	.000345
Totals	1.040838	1.035079	1.393476	1.078027

Table 22. Continued

Industry producing	Direct plus indirect requirements per dollar of final demand			
	29	30	31	32
1. Meat packing	.000379	.004011	.000064	.002776
2. Milk processing	.000560	.001831	.000059	.000967
3. Grain grinding	.078557	.000137	.000013	.000406
4. Other food manufacturing	.001098	.000766	.000260	.001495
5. Primary metal goods	.000000	.000002	.000003	.000035
6. Concrete & concrete products	.000535	.000084	.000317	.001301
7. Textiles & apparel	.000003	.000010	.000012	.000161
8. Printing & engraving	.000826	.001175	.001836	.002513
9. Building supplies & equipment	.004549	.003168	.002305	.010464
10. Farm & industry equipment	.010989	.000025	.000005	.000065
11. Food stores	.000156	.000246	.000203	.028615
12. Autos, gas & durable equip. repair	.078581	.011886	.006735	.008889
13. Home furnishings	.000131	.000131	.000534	.015258
14. Eating & drinking	.000105	.000383	.000684	.000256
15. Specialty stores	.000146	.000027	.000454	.001169
16. Farm supplies & feed	.107238	.000193	.000017	.000545
17. Drug & variety	.000311	.000028	.000046	.000367
18. Dept., gen. merc., aprl. & dry gds.	.008804	.000034	.000020	.001367
19. Other trades	.000018	.000003	.000003	.000013
20. Medical, dental & legal	.009399	.000778	.001358	.002008
21. Amusement & recreation	.000000	.000000	.000000	.000000
22. Apparel care & repair	.000040	.000058	.000040	.007784
23. Other services	.000012	.000003	.000004	.000007
24. Commercial banks	.033309	.001257	.000971	.012506
25. Real estate & insurance	.008307	.005587	.001675	.012774
26. Other lending	.018572	.000321	.000413	.040078
27. Gen. building & subcontract- ing	.000650	.002422	.003054	.041105
28. General construction	.000034	.000071	.000050	.008775
29. Farms & fisheries	1.294300	.002204	.000141	.004100
30. Transportation	.044672	1.000630	.000967	.003453
31. Utilities	.019459	.007102	1.065070	.153763
32. Rental & lodging	.001625	.006997	.004552	1.005640
Totals	1.723365	1.051570	1.091865	1.368655

Table 23. Final demand and total output with estimated output changes for a one percent increase in final demand for each sector, 1962 (thousands of dollars)

Industry producing	Final demand	Total output	Computer check, No change
1. Meat packing	4,902	5,927	5,925
2. Milk processing	11,972	12,500	12,500
3. Grain grinding	1,065	2,305	2,305
4. Other food manufacturing	6,129	6,700	6,700
5. Primary metal goods	1,758	1,773	1,773
6. Concrete & concrete products	391	884	884
7. Textiles & apparel	1,240	1,300	1,300
8. Printing & engraving	295	650	650
9. Building supplies & equipment	1,174	2,921	2,921
10. Farm & industry equipment	1,707	1,915	1,915
11. Food stores	9,565	10,500	10,500
12. Autos, gas & durable equip. repair	10,506	14,400	14,400
13. Home furnishings	2,110	2,290	2,290
14. Eating & drinking	2,655	2,790	2,790
15. Specialty stores	1,213	1,265	1,265
16. Farm supplies & feed	2,192	3,827	3,827
17. Drug & variety	1,848	1,985	1,985
18. Dept., gen. merc., appl. & dry gds.	9,197	9,386	9,386
19. Other trades	722	750	750
20. Medical, dental & legal	3,755	4,031	4,031
21. Amusement & recreation	847	850	850
22. Apparel care & repair	560	618	618
23. Other services	1,281	1,295	1,295
24. Commercial banks	1,481	2,172	2,172
25. Real estate & insurance	2,929	3,539	3,539
26. Other lending	1,223	1,668	1,668
27. Gen. building & subcontracting	12,731	15,286	15,286
28. General construction	7,108	7,200	7,200
29. Farms & fisheries	5,607	18,257	18,256
30. Transportation	878	2,800	2,800
31. Utilities	2,628	4,844	4,844
32. Rental & lodging	2,539	3,383	3,383

Table 23. Continued

Industry producing	One percent increase in final demand by sector			
	1	2	3	4
1. Meat packing	5,974	5,925	5,925	5,927
2. Milk processing	12,500	12,620	12,500	12,500
3. Grain grinding	2,306	2,309	2,316	2,306
4. Other food manufacturing	6,700	6,700	6,700	6,761
5. Primary metal goods	1,773	1,773	1,773	1,773
6. Concrete & concrete products	884	884	884	884
7. Textiles & apparel	1,300	1,300	1,300	1,300
8. Printing & engraving	650	650	650	650
9. Building supplies & equipment	2,921	2,922	2,921	2,921
10. Farm & industry equipment	1,915	1,916	1,915	1,915
11. Food stores	10,500	10,500	10,500	10,500
12. Autos, gas & durable equip. repair	14,401	14,404	14,401	14,401
13. Home furnishings	2,290	2,290	2,290	2,290
14. Eating & drinking	2,790	2,790	2,790	2,790
15. Specialty stores	1,265	1,265	1,265	1,265
16. Farm supplies & feed	3,828	3,832	3,828	3,828
17. Drug & variety	1,985	1,985	1,985	1,985
18. Dept., gen. merc., appl. & dry gds.	9,386	9,386	9,386	9,386
19. Other trades	750	750	750	750
20. Medical, dental & legal	4,031	4,031	4,031	4,031
21. Amusement & recreation	850	850	850	850
22. Apparel care & repair	618	618	618	618
23. Other services	1,295	1,295	1,295	1,295
24. Commercial banks	2,172	2,174	2,172	2,172
25. Real estate & insurance	3,539	3,540	3,539	3,539
26. Other lending	1,668	1,669	1,668	1,668
27. Gen. building & subcontracting	15,286	15,286	15,286	15,286
28. General construction	7,200	7,200	7,200	7,200
29. Farms & fisheries	18,269	18,319	18,265	18,271
30. Transportation	2,800	2,809	2,800	2,802
31. Utilities	4,844	4,847	4,844	4,844
32. Rental & lodging	3,383	3,383	3,383	3,383

Table 23. Continued

Industry producing	One percent increase in final demand by sector			
	5	6	7	8
1. Meat packing	5,925	5,925	5,925	5,925
2. Milk processing	12,500	12,500	12,500	12,500
3. Grain grinding	2,305	2,305	2,305	2,305
4. Other food manufacturing	6,700	6,700	6,700	6,700
5. Primary metal goods	1,791	1,773	1,773	1,773
6. Concrete & concrete products	884	888	884	884
7. Textiles & apparel	1,300	1,300	1,312	1,300
8. Printing & engraving	650	650	650	653
9. Building supplies & equipment	2,921	2,921	2,921	2,921
10. Farm & industry equipment	1,915	1,915	1,915	1,915
11. Food stores	10,500	10,500	10,500	10,500
12. Autos, gas & durable equip. repair	14,401	14,400	14,400	14,400
13. Home furnishings	2,290	2,290	2,290	2,290
14. Eating & drinking	2,790	2,790	2,790	2,790
15. Specialty stores	1,265	1,265	1,265	1,265
16. Farm supplies & feed	3,827	3,827	3,827	3,827
17. Drug & variety	1,985	1,985	1,985	1,985
18. Dept., gen. merc., aprpl. & dry gds.	9,386	9,386	9,386	9,386
19. Other trades	750	750	750	750
20. Medical, dental & legal	4,031	4,031	4,031	4,031
21. Amusement & recreation	850	850	850	850
22. Apparel care & repair	618	618	618	618
23. Other services	1,295	1,295	1,295	1,295
24. Commercial banks	2,172	2,172	2,172	2,172
25. Real estate & insurance	3,539	3,539	3,539	3,539
26. Other lending	1,668	1,668	1,668	1,668
27. Gen. building & subcontracting	15,286	15,286	15,286	15,286
28. General construction	7,200	7,200	7,200	7,200
29. Farms & fisheries	18,256	18,256	18,256	18,256
30. Transportation	2,800	2,800	2,800	2,800
31. Utilities	4,844	4,844	4,844	4,844
32. Rental & lodging	3,383	3,383	3,383	3,383

Table 23. Continued

Industry producing	One percent increase in final demand by sector			
	9	10	11	12
1. Meat packing	5,925	5,925	5,930	5,925
2. Milk processing	12,500	12,500	12,502	12,500
3. Grain grinding	2,305	2,305	2,306	2,305
4. Other food manufacturing	6,700	6,700	6,704	6,700
5. Primary metal goods	1,773	1,773	1,773	1,773
6. Concrete & concrete products	884	884	884	884
7. Textiles & apparel	1,300	1,300	1,300	1,300
8. Printing & engraving	650	650	651	650
9. Building supplies & equipment	2,933	2,921	2,921	2,921
10. Farm & industry equipment	1,915	1,932	1,915	1,915
11. Food stores	10,500	10,500	10,600	10,500
12. Autos, gas & durable equip. repair	14,400	14,400	14,401	14,520
13. Home furnishings	2,290	2,290	2,290	2,290
14. Eating & drinking	2,790	2,790	2,790	2,790
15. Specialty stores	1,265	1,265	1,265	1,265
16. Farm supplies & feed	3,827	3,827	3,828	3,827
17. Drug & variety	1,985	1,985	1,985	1,985
18. Dept., gen. merc., appl. & dry gds.	9,386	9,386	9,386	9,386
19. Other trades	750	750	750	750
20. Medical, dental & legal	4,031	4,031	4,031	4,031
21. Amusement & recreation	850	850	850	850
22. Apparel care & repair	618	618	618	618
23. Other services	1,295	1,295	1,295	1,295
24. Commercial banks	2,172	2,172	2,172	2,172
25. Real estate & insurance	3,539	3,539	3,539	3,539
26. Other lending	1,668	1,668	1,668	1,668
27. Gen. building & subcontracting	15,286	15,286	15,286	15,286
28. General construction	7,200	7,200	7,200	7,200
29. Farms & fisheries	18,256	18,256	18,261	18,256
30. Transportation	2,800	2,800	2,800	2,800
31. Utilities	4,844	4,844	4,845	4,845
32. Rental & lodging	3,383	3,383	3,384	3,384

Table 23. Continued

Industry producing	One percent increase in final demand by sector			
	13	14	15	16
1. Meat packing	5,925	5,926	5,925	5,925
2. Milk processing	12,500	12,502	12,500	12,500
3. Grain grinding	2,305	2,305	2,305	2,305
4. Other food manufacturing	6,700	6,700	6,700	6,700
5. Primary metal goods	1,773	1,773	1,773	1,773
6. Concrete & concrete products	884	884	884	884
7. Textiles & apparel	1,300	1,300	1,300	1,300
8. Printing & engraving	650	650	650	650
9. Building supplies & equipment	2,921	2,921	2,921	2,921
10. Farm & industry equipment	1,915	1,915	1,915	1,915
11. Food stores	10,500	10,502	10,500	10,500
12. Autos, gas & durable equip. repair	14,400	14,400	14,400	14,401
13. Home furnishings	2,311	2,290	2,290	2,290
14. Eating & drinking	2,790	2,817	2,790	2,790
15. Specialty stores	1,265	1,265	1,277	1,265
16. Farm supplies & feed	3,827	3,827	3,827	3,849
17. Drug & variety	1,985	1,985	1,985	1,985
18. Dept., gen. merc., appl. & dry gds.	9,386	9,386	9,386	9,386
19. Other trades	750	750	750	750
20. Medical, dental & legal	4,031	4,031	4,031	4,031
21. Amusement & recreation	850	850	850	850
22. Apparel care & repair	618	618	618	618
23. Other services	1,295	1,295	1,295	1,295
24. Commercial banks	2,172	2,172	2,172	2,172
25. Real estate & insurance	3,539	3,539	3,539	3,539
26. Other lending	1,668	1,668	1,668	1,668
27. Gen. building & subcontracting	15,286	15,286	15,286	15,286
28. General construction	7,200	7,200	7,200	7,200
29. Farms & fisheries	18,256	18,259	18,256	18,261
30. Transportation	2,800	2,800	2,800	2,800
31. Utilities	4,844	4,845	4,844	4,844
32. Rental & lodging	3,383	3,383	3,383	3,383

Table 23. Continued

Industry producing	One percent increase in final demand by sector			
	17	18	19	20
1. Meat packing	5,925	5,925	5,925	5,925
2. Milk processing	12,500	12,500	12,500	12,500
3. Grain grinding	2,305	2,305	2,305	2,305
4. Other food manufacturing	6,700	6,700	6,700	6,700
5. Primary metal goods	1,773	1,773	1,773	1,773
6. Concrete & concrete products	884	884	884	884
7. Textiles & apparel	1,300	1,300	1,300	1,300
8. Printing & engraving	650	651	650	650
9. Building supplies & equipment	2,921	2,921	2,921	2,921
10. Farm & industry equipment	1,915	1,915	1,915	1,915
11. Food stores	10,500	10,500	10,500	10,500
12. Autos, gas & durable equip. repair	14,400	14,400	14,400	14,400
13. Home furnishings	2,290	2,290	2,290	2,290
14. Eating & drinking	2,790	2,790	2,790	2,790
15. Specialty stores	1,265	1,265	1,265	1,265
16. Farm supplies & feed	3,827	3,827	3,827	3,827
17. Drug & variety	2,003	1,985	1,985	1,986
18. Dept., gen. merc., apprl. & dry gds.	9,386	9,478	9,386	9,386
19. Other trades	750	750	757	750
20. Medical, dental & legal	4,031	4,031	4,031	4,069
21. Amusement & recreation	850	850	850	850
22. Apparel care & repair	618	618	618	618
23. Other services	1,295	1,295	1,295	1,295
24. Commercial banks	2,172	2,172	2,172	2,172
25. Real estate & insurance	3,539	3,539	3,539	3,539
26. Other lending	1,668	1,668	1,668	1,668
27. Gen. building & subcontracting	15,286	15,286	15,286	15,286
28. General construction	7,200	7,200	7,200	7,200
29. Farms & fisheries	18,256	18,257	18,256	18,256
30. Transportation	2,800	2,802	2,800	2,800
31. Utilities	4,844	4,846	4,844	4,845
32. Rental & lodging	3,383	3,385	3,383	3,384

Table 23. Continued

Industry producing	One percent increase in final demand by sector			
	21	22	23	24
1. Meat packing	5,925	5,925	5,925	5,925
2. Milk processing	12,500	12,500	12,500	12,500
3. Grain grinding	2,305	2,305	2,305	2,305
4. Other food manufacturing	6,700	6,700	6,700	6,700
5. Primary metal goods	1,773	1,773	1,773	1,773
6. Concrete & concrete products	884	884	884	884
7. Textiles & apparel	1,300	1,300	1,300	1,300
8. Printing & engraving	650	650	650	650
9. Building supplies & equipment	2,921	2,921	2,921	2,921
10. Farm & industry equipment	1,915	1,915	1,915	1,915
11. Food stores	10,501	10,500	10,500	10,500
12. Autos, gas & durable equip. repair	14,400	14,400	14,400	14,400
13. Home furnishings	2,290	2,290	2,290	2,290
14. Eating & drinking	2,790	2,790	2,790	2,790
15. Specialty stores	1,265	1,265	1,265	1,265
16. Farm supplies & feed	3,827	3,827	3,827	3,827
17. Drug & variety	1,985	1,985	1,985	1,985
18. Dept. gen. merc., apprl. & dry gds.	9,386	9,386	9,386	9,386
19. Other trades	750	750	750	750
20. Medical, dental & legal	4,031	4,031	4,031	4,031
21. Amusement & recreation	858	850	850	850
22. Apparel care & repair	618	624	618	618
23. Other services	1,295	1,295	1,308	1,295
24. Commercial banks	2,172	2,172	2,172	2,187
25. Real estate & insurance	3,539	3,539	3,539	3,539
26. Other lending	1,668	1,668	1,668	1,668
27. Gen. building & subcontracting	15,286	15,286	15,286	15,286
28. General construction	7,200	7,200	7,200	7,200
29. Farms & fisheries	18,256	18,256	18,256	18,256
30. Transportation	2,800	2,800	2,800	2,800
31. Utilities	4,844	4,844	4,844	4,844
32. Rental & lodging	3,384	3,383	3,383	3,383

Table 23. Continued

Industry producing	One percent increase in final demand by sector			
	25	26	27	28
1. Meat packing	5,925	5,925	5,925	5,925
2. Milk processing	12,500	12,500	12,500	12,500
3. Grain grinding	2,305	2,305	2,305	2,305
4. Other food manufacturing	6,700	6,700	6,700	6,700
5. Primary metal goods	1,773	1,773	1,773	1,773
6. Concrete & concrete products	884	884	888	884
7. Textiles & apparel	1,300	1,300	1,301	1,300
8. Printing & engraving	650	650	650	650
9. Building supplies & equipment	2,921	2,921	2,934	2,922
10. Farm & industry equipment	1,915	1,915	1,915	1,915
11. Food stores	10,500	10,500	10,500	10,500
12. Autos, gas & durable equip. repair	14,400	14,400	14,402	14,403
13. Home furnishings	2,290	2,290	2,291	2,290
14. Eating & drinking	2,790	2,790	2,790	2,790
15. Specialty stores	1,265	1,265	1,265	1,265
16. Farm supplies & feed	3,827	3,827	3,827	3,827
17. Drug & variety	1,985	1,985	1,985	1,985
18. Dept., gen. merc., aprl. & dry gds.	9,386	9,386	9,386	9,386
19. Other trades	750	750	750	750
20. Medical, dental & legal	4,031	4,031	4,031	4,031
21. Amusement & recreation	850	850	850	850
22. Apparel care & repair	618	618	618	618
23. Other services	1,295	1,295	1,295	1,295
24. Commercial banks	2,172	2,172	2,173	2,172
25. Real estate & insurance	3,568	3,539	3,539	3,539
26. Other lending	1,668	1,680	1,668	1,668
27. Gen. building & subcontracting	15,286	15,286	15,436	15,286
28. General construction	7,200	7,200	7,201	7,271
29. Farms & fisheries	18,256	18,256	18,256	18,256
30. Transportation	2,800	2,800	2,800	2,800
31. Utilities	4,844	4,844	4,845	4,844
32. Rental & lodging	3,383	3,383	3,384	3,383

Table 23. Continued

Industry producing	One percent increase in final demand by sector			
	29	30	31	32
1. Meat packing	5,925	5,925	5,925	5,925
2. Milk processing	12,500	12,500	12,500	12,500
3. Grain grinding	2,309	2,305	2,305	2,305
4. Other food manufacturing	6,700	6,700	6,700	6,700
5. Primary metal goods	1,773	1,773	1,773	1,773
6. Concrete & concrete products	884	884	884	884
7. Textiles & apparel	1,300	1,300	1,300	1,300
8. Printing & engraving	650	650	650	650
9. Building supplies & equipment	2,921	2,921	2,921	2,921
10. Farm & industry equipment	1,916	1,915	1,915	1,915
11. Food stores	10,500	10,500	10,500	10,501
12. Autos, gas & durable equip. repair	14,404	14,400	14,400	14,400
13. Home furnishings	2,290	2,290	2,290	2,290
14. Eating & drinking	2,790	2,790	2,790	2,790
15. Specialty stores	1,265	1,265	1,265	1,265
16. Farm supplies & feed	3,833	3,827	3,827	3,827
17. Drug & variety	1,985	1,985	1,985	1,985
18. Dept., gen. merc., apprl. & dry gds.	9,386	9,386	9,386	9,386
19. Other trades	750	750	750	750
20. Medical, dental & legal	4,032	4,031	4,031	4,031
21. Amusement & recreation	850	850	850	850
22. Apparel care & repair	618	618	618	618
23. Other services	1,295	1,295	1,295	1,295
24. Commercial banks	2,174	2,172	2,172	2,172
25. Real estate & insurance	3,539	3,539	3,539	3,539
26. Other lending	1,669	1,668	1,668	1,669
27. Gen. building & subcontracting	15,286	15,286	15,286	15,287
28. General construction	7,200	7,200	7,200	7,200
29. Farms & fisheries	18,329	18,256	18,256	18,256
30. Transportation	2,802	2,809	2,800	2,800
31. Utilities	4,845	4,844	4,872	4,848
32. Rental & lodging	3,383	3,383	3,383	3,409

Appendix C1967 Input-Output Tables

Tables 24, 25, 26, and 27 are tables used for the 1967 predictions. Table 24 is the transaction table, Table 25 is the direct coefficients table, Table 26 is the direct and indirect coefficients table, and Table 27 is the table with final demand changes of one percent, one sector at a time, with the resulting output.

Table 24. Interindustry flow of goods and services, Cache County, Utah, 1967 (thousands of dollars)

Industry producing	Industry purchasing			
	1	2	3	4
1. Meat packing	42	7	x	298
2. Milk processing	5	37	9	x
3. Grain grinding	x*	a**	49	x
4. Other food manufacturing	1	12	18	15
5. Primary metal goods	x	x	x	x
6. Concrete & concrete products	x	x	x	x
7. Textiles & apparel	x	x	x	x
8. Printing & engraving	1	4	4	2
9. Building supplies & equipment	3	74	5	23
10. Farm & industry equipment	x	12	2	x
11. Food stores	x	4	x	1
12. Autos, gas & durable equip. repair	93	101	37	33
13. Home furnishings	x	x	x	x
14. Eating & drinking	2	1	a	2
15. Specialty stores	1	x	x	x
16. Farm supplies & feed	3	9	3	11
17. Drug & variety	x	1	a	a
18. Dept., gen. merc., appl. & dry gds.	x	1	x	x
19. Other trades	x	a	a	a
20. Medical, dental & legal	2	1	5	1
21. Amusement & recreation	x	x	x	x
22. Apparel care & repair	2	x	x	1
23. Other services	x	x	x	x
24. Commercial banks	23	16	1	8
25. Real estate & insurance	76	77	8	23
26. Other lending	x	x	x	x
27. Gen. building & subcontracting	10	1	5	x
28. General construction	3	x	x	x
29. Farms & fisheries	1,556	5,200	1,014	1,428
30. Transportation	3	1,126	11	134
31. Utilities	45	277	19	35
32. Rental & lodging	1	x	x	7
Households (wgs., div. & depr.)	1,436	1,801	174	1,486
Cache County	35	118	16	106
Rest of world	17,760	9,619	375	4,358
Totals	21,103	18,499	1,755	7,972

*indicates no transactions

**indicates transactions of less than \$500

Table 24. Continued

Industry producing	Industry purchasing			
	5	6	7	8
1. Meat packing	x	x	x	x
2. Milk processing	x	x	x	x
3. Grain grinding	x	x	x	x
4. Other food manufacturing	2	1	2	1
5. Primary metal goods	x	a	x	x
6. Concrete & concrete products	x	x	x	x
7. Textiles & apparel	x	x	x	x
8. Printing & engraving	4	a	3	11
9. Building supplies & equipment	14	3	a	5
10. Farm & industry equipment	30	3	x	x
11. Food stores	x	x	x	x
12. Autos, gas & durable equip. repair	111	54	3	4
13. Home furnishings	x	x	x	x
14. Eating & drinking	2	1	a	a
15. Specialty stores	x	1	x	x
16. Farm supplies & feed	x	x	x	x
17. Drug & variety	x	x	x	x
18. Dept., gen. merc., apprl. & dry gds.	x	x	a	1
19. Other trades	14	1	x	x
20. Medical, dental & legal	12	2	1	1
21. Amusement & recreation	x	x	a	x
22. Apparel care & repair	2	x	x	x
23. Other services	x	x	x	1
24. Commercial banks	4	1	1	1
25. Real estate & insurance	12	5	4	3
26. Other lending	x	x	x	a
27. Gen. building & subcontracting	4	a	4	x
28. General construction	x	x	x	x
29. Farms & fisheries	x	x	x	x
30. Transportation	18	a	27	13
31. Utilities	11	14	13	15
32. Rental & lodging	28	x	4	3
Households (wgs., div. & depr.)	1,368	373	583	414
Cache County	30	21	1	7
Rest of world	2,587	361	731	386
Totals	4,253	841	1,377	866

Table 24. Continued

Industry producing	Industry purchasing			
	9	10	11	12
1. Meat packing	x	x	644	x
2. Milk processing	x	x	271	x
3. Grain grinding	x	x	64	x
4. Other food manufacturing	1	2	454	31
5. Primary metal goods	a	x	x	x
6. Concrete & concrete products	13	x	x	x
7. Textiles & apparel	x	x	x	x
8. Printing & engraving	8	2	66	27
9. Building supplies & equipment	1	x	9	9
10. Farm & industry equipment	x	2	x	7
11. Food stores	x	x	531	9
12. Autos, gas & durable equip. repair	50	62	91	2,146
13. Home furnishings	x	x	2	7
14. Eating & drinking	a	a	38	1
15. Specialty stores	a	2	1	4
16. Farm supplies & feed	x	x	85	6
17. Drug & variety	x	x	x	x
18. Dept., gen. merc., apprl. & dry gds.	x	x	a	x
19. Other trades	a	a	a	4
20. Medical, dental & legal	4	5	12	15
21. Amusement & recreation	x	x	x	x
22. Apparel care & repair	x	x	x	2
23. Other services	x	a	x	1
24. Commercial banks	5	2	12	9
25. Real estate & insurance	18	13	40	72
26. Other lending	x	x	2	1
27. Gen. building & subcontracting	x	x	x	1
28. General construction	x	5	x	x
29. Farms & fisheries	x	x	19	x
30. Transportation	4	22	4	4
31. Utilities	16	17	116	139
32. Rental & lodging	x	15	78	106
Households (wgs., div. & depr.)	604	481	1,040	2,496
Cache County	21	13	48	79
Rest of world	2,936	2,555	8,763	11,815
Totals	3,681	3,198	12,390	16,991

Table 24. Continued

Industry producing	Industry purchasing			
	13	14	15	16
1. Meat packing	x	171	x	3
2. Milk processing	x	256	x	x
3. Grain grinding	x	16	x	17
4. Other food manufacturing	1	62	1	1
5. Primary metal goods	x	x	x	x
6. Concrete & concrete products	x	x	x	x
7. Textiles & apparel	a	x	x	x
8. Printing & engraving	27	3	12	1
9. Building supplies & equipment	6	11	2	25
10. Farm & industry equipment	x	x	x	x
11. Food stores	a	323	x	x
12. Autos, gas & durable equip. repair	41	57	7	90
13. Home furnishings	x	x	a	x
14. Eating & drinking	a	100	a	a
15. Specialty stores	1	x	1	x
16. Farm supplies & feed	a	4	x	24
17. Drug & variety	x	x	a	x
18. Dept., gen. merc., appl. & dry gds.	x	1	x	x
19. Other trades	1	4	2	a
20. Medical, dental & legal	7	12	5	1
21. Amusement & recreation	x	x	x	x
22. Apparel care & repair	x	11	x	x
23. Other services	x	x	x	x
24. Commercial banks	2	8	1	4
25. Real estate & insurance	15	24	7	11
26. Other lending	x	x	x	x
27. Gen. building & subcontracting	35	x	x	x
28. General construction	x	x	x	x
29. Farms & fisheries	x	73	x	509
30. Transportation	8	15	11	5
31. Utilities	53	104	20	36
32. Rental & lodging	25	51	32	5
Households (wgs., div. & depr.)	539	1,234	465	343
Cache County	14	24	13	35
Rest of world	1,925	1,080	925	2,377
Totals	2,700	3,644	1,504	3,487

Table 24. Continued

Industry producing	Industry purchasing			
	17	18	19	20
1. Meat packing	x	70	x	10
2. Milk processing	13	45	x	19
3. Grain grinding	x	26	x	3
4. Other food manufacturing	17	30	2	2
5. Primary metal goods	x	x	x	x
6. Concrete & concrete products	x	x	x	x
7. Textiles & apparel	x	x	x	x
8. Printing & engraving	44	123	2	14
9. Building supplies & equipment	a	11	2	x
10. Farm & industry equipment	x	x	x	x
11. Food stores	13	5	x	35
12. Autos, gas & durable equip. repair	2	38	30	7
13. Home furnishings	x	x	x	a
14. Eating & drinking	a	1	2	2
15. Specialty stores	2	4	13	9
16. Farm supplies & feed	x	1	7	2
17. Drug & variety	1	x	x	231
18. Dept., gen. merc., apprl. & dry gds.	x	1	x	5
19. Other trades	x	1	11	x
20. Medical, dental & legal	2	8	3	38
21. Amusement & recreation	x	x	x	x
22. Apparel care & repair	a	9	x	7
23. Other services	12	1	x	2
24. Commercial banks	2	12	2	7
25. Real estate & insurance	10	38	7	37
26. Other lending	x	x	x	3
27. Gen. building & subcontracting	x	x	2	2
28. General construction	x	x	x	x
29. Farms & fisheries	x	x	x	2
30. Transportation	26	258	36	x
31. Utilities	25	177	16	122
32. Rental & lodging	29	285	5	151
Households (wgs., div. & depr.)	554	1,808	333	4,418
Cache County	12	54	3	33
Rest of world	1,615	9,665	756	1,853
Totals	2,379	12,671	1,232	7,014

Table 24. Continued

Industry producing	Industry purchasing			
	21	22	23	24
1. Meat packing	3	x	x	x
2. Milk processing	1	x	x	x
3. Grain grinding	x	x	x	x
4. Other food manufacturing	7	3	4	1
5. Primary metal goods	x	x	3	x
6. Concrete & concrete products	x	1	17	x
7. Textiles & apparel	x	x	x	x
8. Printing & engraving	4	3	7	12
9. Building supplies & equipment	x	a	17	x
10. Farm & industry equipment	x	x	x	x
11. Food stores	138	x	x	x
12. Autos, gas & durable equip. repair	7	11	11	6
13. Home furnishings	x	x	7	5
14. Eating & drinking	1	a	a	4
15. Specialty stores	x	1	3	1
16. Farm supplies & feed	1	x	x	x
17. Drug & variety	x	x	x	x
18. Dept., gen. merc., apprl. & dry gds.	4	1	1	x
19. Other trades	3	a	a	x
20. Medical, dental & legal	3	3	3	4
21. Amusement & recreation	1	x	3	x
22. Apparel care & repair	1	5	4	x
23. Other services	a	x	x	x
24. Commercial banks	1	1	1	x
25. Real estate & insurance	11	7	13	6
26. Other lending	x	x	3	4
27. Gen. building & subcontracting	x	x	7	10
28. General construction	x	x	x	x
29. Farms & fisheries	x	x	x	x
30. Transportation	x	a	8	37
31. Utilities	52	39	56	23
32. Rental & lodging	67	17	27	x
Households (wgs., div. & depr.)	344	385	739	1,236
Cache County	8	9	14	10
Rest of world	508	364	877	1,312
Totals	1,165	850	1,825	2,671

Table 24. Continued

Industry producing	Industry purchasing			
	25	26	27	28
1. Meat packing	x	a	x	x
2. Milk processing	x	x	x	x
3. Grain grinding	x	x	x	x
4. Other food manufacturing	2	1	1	1
5. Primary metal goods	x	x	10	x
6. Concrete & concrete products	x	x	339	17
7. Textiles & apparel	x	x	46	x
8. Printing & engraving	25	10	7	3
9. Building supplies & equipment	x	x	1,033	138
10. Farm & industry equipment	x	x	x	18
11. Food stores	x	x	x	x
12. Autos, gas & durable equip. repair	54	4	80	250
13. Home furnishings	x	x	84	x
14. Eating & drinking	5	1	2	1
15. Specialty stores	11	7	2	x
16. Farm supplies & feed	x	x	x	x
17. Drug & variety	x	x	1	x
18. Dept., gen. merc., apprl. & dry gds.	x	x	37	x
19. Other trades	x	x	x	x
20. Medical, dental & legal	x	5	11	8
21. Amusement & recreation	x	x	x	x
22. Apparel care & repair	x	x	x	x
23. Other services	x	x	x	x
24. Commercial banks	6	2	62	7
25. Real estate & insurance	3	4	21	39
26. Other lending	2	1	29	x
27. Gen. building & subcontracting	x	a	1,777	24
28. General construction	x	x	43	x
29. Farms & fisheries	x	x	x	x
30. Transportation	2	x	27	x
31. Utilities	57	17	58	19
32. Rental & lodging	30	10	55	x
Households (wgs., div. & depr.)	1,040	1,286	3,002	859
Cache County	3	2	46	23
Rest of world	4,353	668	4,855	6,223
Totals	5,593	2,018	11,628	7,630

Table 24. Continued

Industry producing	Industry purchasing			
	29	30	31	32
1. Meat packing	x	13	x	5
2. Milk processing	x	6	x	1
3. Grain grinding	1,122	x	x	a
4. Other food manufacturing	a	2	1	1
5. Primary metal goods	x	x	x	x
6. Concrete & concrete products	7	x	1	x
7. Textiles & apparel	x	x	x	x
8. Printing & engraving	x	4	11	7
9. Building supplies & equipment	47	10	12	29
10. Farm & industry equipment	161	x	x	x
11. Food stores	x	a	x	125
12. Autos, gas & durable equip. repair	935	34	36	23
13. Home furnishings	x	x	3	68
14. Eating & drinking	a	1	4	x
15. Specialty stores	x	x	3	4
16. Farm supplies & feed	1,575	x	x	x
17. Drug & variety	a	x	x	1
18. Dept., gen. merc., appl. & dry gds.	130	x	x	5
19. Other trades	a	x	x	x
20. Medical, dental & legal	131	2	8	7
21. Amusement & recreation	x	x	x	x
22. Apparel care & repair	x	x	x	35
23. Other services	x	x	x	x
24. Commercial banks	488	4	5	54
25. Real estate & insurance	100	18	10	54
26. Other lending	273	x	1	182
27. Gen. building & subcontracting	x	6	15	156
28. General construction	x	x	x	39
29. Farms & fisheries	3,446	x	x	8
30. Transportation	639	1	5	12
31. Utilities	211	18	400	651
32. Rental & lodging	x	23	27	18
Households (wgs., div. & depr.)	7,630	1,099	1,451	885
Cache County	646	7	367	324
Rest of world	1,626	2,339	4,274	1,903
Totals	19,167	3,587	6,634	4,597

Table 24. Continued

Industry producing	Final demand			
	House- holds	Cache County	USU USU students	
1. Meat packing	232	18	8	26
2. Milk processing	780	24	19	89
3. Grain grinding	34	2	a	3
4. Other food manufacturing	143	a	24	15
5. Primary metal goods	108	2	4	x
6. Concrete & concrete products	x	1	51	x
7. Textiles & apparel	42	x	a	x
8. Printing & engraving	211	36	62	15
9. Building supplies & equipment	35	28	218	x
10. Farm & industry equipment	21	10	13	x
11. Food stores	8,564	47	71	1,299
12. Autos, gas & durable equip. repair	9,100	235	175	1,135
13. Home furnishings	1,966	40	13	289
14. Eating & drinking	1,395	2	4	1,343
15. Specialty stores	918	a	21	365
16. Farm supplies & feed	276	2	88	x
17. Drug & variety	1,801	1	11	170
18. Dept., gen. merc., appl. & dry gds.	9,027	10	32	822
19. Other trades	286	3	11	28
20. Medical, dental & legal	3,215	14	15	520
21. Amusement & recreation	416	5	2	591
22. Apparel care & repair	295	3	36	435
23. Other services	788	24	393	425
24. Commercial banks	317	18	a	72
25. Real estate & insurance	1,966	125	9	50
26. Other lending	904	20	a	18
27. Gen. building & subcontracting	x	x	71	x
28. General construction	x	x	9	x
29. Farms & fisheries	408	x	24	x
30. Transportation	525	3	265	116
31. Utilities	2,685	15	374	185
32. Rental & lodging	924	145	2	2,119
Households (wgs., div. & depr.)	123	4,129	10,344	x
Cache County	882	107	x	131
Rest of world	15,921	1,185	16,180	x
Totals	*74,571	6,254	28,549	*

*USU students and households combined in total

Table 24. Continued

Industry producing	Final demand		
	Capital	Rest of world	Total
1. Meat packing	x	19,553	21,103
2. Milk processing	x	16,924	18,499
3. Grain grinding	x	419	1,755
4. Other food manufacturing	x	7,110	7,972
5. Primary metal goods	x	4,126	4,253
6. Concrete & concrete products	150	244	841
7. Textiles & apparel	x	1,289	1,377
8. Printing & engraving	x	91	866
9. Building supplies & equipment	874	1,037	3,681
10. Farm & industry equipment	202	2,717	3,198
11. Food stores	x	1,225	12,390
12. Autos, gas & durable equip. repair	470	1,368	16,991
13. Home furnishings	6	210	2,700
14. Eating & drinking	x	729	3,644
15. Specialty stores	x	129	1,504
16. Farm supplies & feed	x	1,390	3,487
17. Drug & variety	x	161	2,379
18. Dept., gen. merc., appl. & dry gds.	x	2,593	12,671
19. Other trades	x	861	1,232
20. Medical, dental & legal	x	2,928	7,014
21. Amusement & recreation	x	147	1,165
22. Apparel care & repair	x	2	850
23. Other services	x	178	1,825
24. Commercial banks	x	1,512	2,671
25. Real estate & insurance	x	2,657	5,593
26. Other lending	x	575	2,018
27. Gen. building & subcontracting	4,680	4,818	11,628
28. General construction	2,051	5,480	7,630
29. Farms & fisheries	x	5,480	19,167
30. Transportation	x	222	3,587
31. Utilities	x	504	6,634
32. Rental & lodging	x	308	4,597
Households (wgs., div. & depr.)	x	18,069	74,571
Cache County	x	2,992	6,254
Rest of world	x		
Total	8,433		

Table 25. Direct requirements per dollar of output, Cache County, 1967

Industry producing	Direct purchases per dollar of output			
	1	2	3	4
1. Meat packing	.001990	.000378	x	.037380
2. Milk processing	.000236	.002000	.005128	x
3. Grain grinding	x	a	.027920	x
4. Other food manufacturing	.000047	.000648	.010256	.001881
5. Primary metal goods	x	x	x	x
6. Concrete & concrete products	x	x	x	x
7. Textiles & apparel	x	x	x	x
8. Printing & engraving	.000047	.000216	.002279	.000250
9. Building supplies & equipment	.000142	.004000	.002849	.002885
10. Farm & industry equipment	x	.000648	.001139	x
11. Food stores	x	.000216	x	.000125
12. Autos, gas & durable equip. repair	.004406	.005459	.021082	.004139
13. Home furnishings	x	x	x	x
14. Eating & drinking	.000094	.000054	a	.000250
15. Specialty stores	.000047	x	x	x
16. Farm supplies & feed	.000142	.000486	.001709	.001379
17. Drug & variety	x	.000054	a	a
18. Dept., gen. merc., appl. & dry gds.	x	.000054	x	x
19. Other trades	x	a	a	a
20. Medical, dental & legal	.000094	.000054	.002849	.000125
21. Amusement & recreation	x	x	x	x
22. Apparel care & repair	.000094	x	x	.000125
23. Other services	x	x	x	x
24. Commercial banks	.001089	.000864	.000569	.001003
25. Real estate & insurance	.003601	.004162	.004558	.002885
26. Other lending	x	x	x	x
27. Gen. building & subcontracting	.000473	.000054	.002849	x
28. General construction	.000142	x	x	x
29. Farms & fisheries	.073733	.281096	.577777	.179126
30. Transportation	.000142	.060868	.006267	.016808
31. Utilities	.002132	.014973	.010826	.004390
32. Rental & lodging	.000047	x	x	.000878
Households (wgs., div. & depr.)	.068047	.097356	.099145	.186402
Cache County	.001658	.006378	.009116	.013296
Rest of world	.841586	.519974	.213675	.546663

Table 25. Continued

Industry producing	Direct purchases per dollar of output			
	5	6	7	8
1. Meat packing	x	x	x	x
2. Milk processing	x	x	x	x
3. Grain grinding	x	x	x	x
4. Other food manufacturing	.000470	.001189	.001452	.001154
5. Primary metal goods	x	a	x	x
6. Concrete & concrete products	x	x	x	x
7. Textiles & apparel	x	x	x	x
8. Printing & engraving	.000940	a	.002178	.012702
9. Building supplies & equipment	.003291	.003567	a	.005773
10. Farm & industry equipment	.007053	.003567	x	x
11. Food stores	x	x	x	x
12. Autos, gas & durable equip. repair	.026099	.064209	.002178	.004618
13. Home furnishings	x	x	x	x
14. Eating & drinking	.000470	.001189	a	a
15. Specialty stores	x	.001189	x	x
16. Farm supplies & feed	x	x	x	x
17. Drug & variety	x	x	x	x
18. Dept., gen. merc., appl. & dry gds.	x	x	a	.001154
19. Other trades	.003291	.001189	x	x
20. Medical, dental & legal	.002821	.002378	.000726	.001154
21. Amusement & recreation	x	x	a	x
22. Apparel care & repair	.000470	x	x	x
23. Other services	x	x	x	.001154
24. Commercial banks	.000940	.001189	.000726	.001154
25. Real estate & insurance	.002821	.005945	.002904	.003464
26. Other lending	x	x	x	a
27. Gen. building & subcontracting	.000940	a	.002904	x
28. General construction	x	x	x	x
29. Farms & fisheries	x	x	x	x
30. Transportation	.004232	a	.019607	.015011
31. Utilities	.002586	.016646	.009440	.017321
32. Rental & lodging	.006583	x	.002904	.003464
Households (wgs., div. & depr.)	.321655	.443519	.423384	.478060
Cache County	.007053	.024970	.000726	.008083
Rest of world	.608276	.429250	.530864	.445727

Table 25. Continued

Industry producing	Direct purchases per dollar of output			
	9	10	11	12
1. Meat packing	x	x	.051977	x
2. Milk processing	x	x	.021872	x
3. Grain grinding	x	x	.005165	x
4. Other food manufacturing	.000271	.000625	.036842	.001824
5. Primary metal goods	a	x	x	x
6. Concrete & concrete products	.003531	x	x	x
7. Textiles & apparel	x	x	x	x
8. Printing & engraving	.002173	.000625	.005326	.001589
9. Building supplies & equipment	.000271	x	.000726	.000529
10. Farm & industry equipment	x	.000625	x	.000411
11. Food stores	x	x	.042857	.000529
12. Autos, gas & durable equip. repair	.013583	.019387	.007344	.126302
13. Home furnishings	x	x	.000161	.000411
14. Eating & drinking	a	a	.003066	.000058
15. Specialty stores	a	.000625	.000080	.000235
16. Farm supplies & feed	x	x	.006860	.000353
17. Drug & variety	x	x	x	x
18. Dept., gen. merc., appl. & dry gds.	x	x	a	x
19. Other trades	a	a	a	.000235
20. Medical, dental & legal	.001086	.001563	.000968	.000882
21. Amusement & recreation	x	x	x	x
22. Apparel care & repair	x	x	x	.000117
23. Other services	x	a	x	.000058
24. Commercial banks	.001358	.000625	.000968	.000529
25. Real estate & insurance	.004889	.004065	.003228	.004237
26. Other lending	x	x	.000161	.000058
27. Gen. building & subcontracting	x	x	x	.000058
28. General construction	x	.001563	x	x
29. Farms & fisheries	x	x	.001533	x
30. Transportation	.001086	.006879	.000322	.000235
31. Utilities	.004346	.005315	.009362	.008180
32. Rental & lodging	x	.004690	.006295	.006238
Households (wgs., div. & depr.)	.164085	.150406	.083938	.146901
Cache County	.005704	.004065	.003874	.004649
Rest of world	.797609	.798311	.707263	.695368

Table 25. Continued

Industry producing	Direct purchases per dollar of output			
	13	14	15	16
1. Meat packing	x	.046926	x	.000860
2. Milk processing	x	.070252	x	x
3. Grain grinding	x	.004390	x	.004875
4. Other food manufacturing	.000370	.017014	.000664	.000286
5. Primary metal goods	x	x	x	x
6. Concrete & concrete products	x	x	x	x
7. Textiles & apparel	a	x	x	x
8. Printing & engraving	.010000	.000823	.007978	.000286
9. Building supplies & equipment	.002222	.003018	.001329	.007169
10. Farm & industry equipment	x	x	x	x
11. Food stores	a	.088638	x	x
12. Autos, gas & durable equip. repair	.015185	.015642	.004654	.025810
13. Home furnishings	x	x	a	x
14. Eating & drinking	a	.027442	a	a
15. Specialty stores	.000370	x	.000664	x
16. Farm supplies & feed	a	.001097	x	.006882
17. Drug & variety	a	x	a	x
18. Dept., gen. merc., aprl. & dry gds.	x	.000274	x	x
19. Other trades	.000370	.001097	.001329	a
20. Medical, dental & legal	.002592	.003293	.003324	.000286
21. Amusement & recreation	x	x	x	x
22. Apparel care & repair	x	.003018	x	x
23. Other services	x	x	x	x
24. Commercial banks	.000740	.002195	.000664	.001147
25. Real estate & insurance	.005555	.006586	.004654	.003154
26. Other lending	x	x	x	x
27. Gen. building & subcontracting	.012962	x	x	x
28. General construction	x	x	x	x
29. Farms & fisheries	x	.020032	x	.145970
30. Transportation	.002962	.004116	.007313	.001433
31. Utilities	.019629	.028540	.013297	.010324
32. Rental & lodging	.009259	.013995	.021276	.001433
Households (wgs., div. & depr.)	.199629	.338638	.309175	.098365
Cache County	.005185	.006586	.008643	.010037
Rest of world	.712962	.296377	.615026	.681674

Table 25. Continued

Industry producing	Direct purchases per dollar of output			
	17	18	19	20
1. Meat packing	x	.005524	x	.001425
2. Milk processing	.005464	.003551	x	.002708
3. Grain grinding	x	.002051	x	.000427
4. Other food manufacturing	.007145	.002367	.001623	.000285
5. Primary metal goods	x	x	x	x
6. Concrete & concrete products	x	x	x	x
7. Textiles & apparel	x	x	x	x
8. Printing & engraving	.018495	.009707	.001623	.001996
9. Building supplies & equipment	a	.000868	.001623	x
10. Farm & industry equipment	x	x	x	x
11. Food stores	.005464	.000394	x	.004990
12. Autos, gas & durable equip. repair	.000840	.002998	.024350	.000998
13. Home furnishings	x	x	x	a
14. Eating & drinking	a	.000078	.001623	.000285
15. Specialty stores	.000840	.000315	.010551	.001283
16. Farm supplies & feed	x	.000078	.005681	.000285
17. Drug & variety	.000420	x	x	.032934
18. Dept., gen. merc., appl. & dry gds.	x	.000078	x	.000712
19. Other trades	x	.000078	.008928	x
20. Medical, dental & legal	.000840	.000631	.002435	.005417
21. Amusement & recreation	x	x	x	x
22. Apparel care & repair	a	.000710	x	.000998
23. Other services	.005044	.000078	x	.000285
24. Commercial banks	.000840	.000947	.001623	.000998
25. Real estate & insurance	.004203	.002998	.005681	.005275
26. Other lending	x	x	x	.000427
27. Gen. building & subcontracting	x	x	.001623	.000285
28. General construction	x	x	x	x
29. Farms & fisheries	x	x	x	.000285
30. Transportation	.010928	.020361	.029220	x
31. Utilities	.010508	.013968	.012987	.017393
32. Rental & lodging	.012189	.022492	.004058	.021528
Households	.232870	.142688	.270292	.629883
Cache County	.005044	.004261	.002435	.004704
Rest of world	.678856	.762765	.613636	.264185

Table 25. Continued

Industry producing	Direct purchases per dollar of output			
	21	22	23	24
1. Meat packing	.002575	x	x	x
2. Milk processing	.000858	x	x	x
3. Grain grinding	x	x	x	x
4. Other food manufacturing	.006008	.003529	.002191	.000374
5. Primary metal goods	x	x	.001643	x
6. Concrete & concrete products	x	.001176	.009315	x
7. Textiles & apparel	x	x	x	x
8. Printing & engraving	.003433	.003529	.003835	.004492
9. Building supplies & equipment	x	a	.009315	x
10. Farm & industry equipment	x	x	x	x
11. Food stores	.118454	x	x	x
12. Autos, gas & durable equip. repair	.006008	.012941	.006027	.002246
13. Home furnishings	x	x	.003835	.001871
14. Eating & drinking	.000858	a	a	.001497
15. Specialty stores	x	.001176	.001643	.000374
16. Farm supplies & feed	.000858	x	x	x
17. Drug & variety	x	x	x	x
18. Dept., gen. merc., appl. & dry gds.	.003433	.001176	.000547	x
19. Other trades	.002575	a	a	x
20. Medical, dental & legal	.002575	.003529	.001643	.001497
21. Amusement & recreation	.000858	x	.001643	x
22. Apparel care & repair	.000858	.005882	.002191	x
23. Other services	a	x	x	x
24. Commercial banks	.000858	.001176	.000547	x
25. Real estate & insurance	.009442	.008235	.007123	.002246
26. Other lending	x	x	.001643	.001497
27. Gen. building & subcontracting	x	x	.003835	.003743
28. General construction	x	x	x	x
29. Farms & fisheries	x	x	x	x
30. Transportation	x	a	.004383	.013852
31. Utilities	.044635	.045882	.030684	.008611
32. Rental & lodging	.057510	.020000	.014794	x
Households	.295278	.452941	.404931	.462748
Cache County	.006866	.010588	.007671	.003743
Rest of world	.436051	.428235	.480547	.491201

Table 25. Continued

Industry producing	Direct purchases per dollar of output			
	25	26	27	28
1. Meat packing	x	a	x	x
2. Milk processing	x	x	x	x
3. Grain grinding	x	x	x	x
4. Other food manufacturing	.000357	.000495	.000085	.000131
5. Primary metal goods	x	x	.000859	x
6. Concrete & concrete products	x	x	.029153	.002228
7. Textiles & apparel	x	x	.003955	x
8. Printing & engraving	.004469	.004955	.000601	.000393
9. Building supplies & equipment	x	x	.088837	.018086
10. Farm & industry equipment	x	x	x	.002359
11. Food stores	x	x	x	x
12. Autos, gas & durable equip. repair	.009654	.001982	.006879	.032765
13. Home furnishings	x	x	.007223	x
14. Eating & drinking	.000893	.000495	.000171	.000131
15. Specialty stores	.001966	.003468	.000171	x
16. Farm supplies & feed	x	x	x	x
17. Drug & variety	x	x	.000085	x
18. Dept., gen. merc., apprl. & dry gds.	x	x	.003181	x
19. Other trades	x	x	x	x
20. Medical, dental & legal	x	.002477	.000945	.001048
21. Amusement & recreation	x	x	x	x
22. Apparel care & repair	x	x	x	x
23. Other services	x	x	x	x
24. Commercial banks	.001072	.000991	.005331	.000917
25. Real estate & insurance	.000536	.001982	.001805	.005111
26. Other lending	.000357	.000495	.002493	x
27. Gen. building & subcontracting	x	a	.152820	.003145
28. General construction	x	x	.003697	x
29. Farms & fisheries	x	x	x	x
30. Transportation	.000357	x	.002321	x
31. Utilities	.010191	.008424	.004987	.002490
32. Rental & lodging	.005363	.004955	.004729	x
Households	.185946	.637264	.258169	.112581
Cache County	.000536	.000991	.003955	.003014
Rest of world	.778294	.331020	.417526	.815596

Table 25. Continued

Industry producing	Direct purchases per dollar of output			
	29	30	31	32
1. Meat packing	x	.003624	x	.001087
2. Milk processing	x	.001672	x	.000217
3. Grain grinding	.058538	x	x	a
4. Other food manufacturing	a	.000557	.000150	.000217
5. Primary metal goods	x	x	x	x
6. Concrete & concrete products	.000365	x	.000150	x
7. Textiles & apparel	x	x	x	x
8. Printing & engraving	x	.001115	.001658	.001522
9. Building supplies & equipment	.002452	.002787	.001808	.006308
10. Farm & industry equipment	.008399	x	x	x
11. Food stores	x	a	x	.027191
12. Autos, gas & durable equip. repair	.048781	.009478	.005426	.005003
13. Home furnishings	x	x	.000452	.014792
14. Eating & drinking	a	.000278	.000602	x
15. Specialty stores	x	x	.000452	.000870
16. Farm supplies & feed	.082172	x	x	x
17. Drug & variety	a	x	x	.000217
18. Dept., gen. merc., apprl. & dry gds.	.006782	x	x	.001087
19. Other trades	a	x	x	x
20. Medical, dental & legal	.006834	.000557	.001205	.001522
21. Amusement & recreation	x	x	x	x
22. Apparel care & repair	x	x	x	.007613
23. Other services	x	x	x	x
24. Commercial banks	.025460	.001115	.000753	.011746
25. Real estate & insurance	.005217	.005018	.001507	.011746
26. Other lending	.014243	x	.000150	.039591
27. Gen. building & subcontracting	x	.001672	.002261	.033935
28. General construction	x	x	x	.008483
29. Farms & fisheries	.179788	x	x	.001740
30. Transportation	.033338	.000278	.000753	.002610
31. Utilities	.011008	.005018	.060295	.141614
32. Rental & lodging	x	.006412	.004069	.003915
Households	.398080	.306384	.218721	.192516
Cache County	.033703	.001951	.055321	.070480
Rest of world	.084833	.652076	.644256	.413965

Table 26. Direct and indirect trade coefficients, Cache County, 1967

Industry producing	Direct plus indirect requirements per dollar of final demand			
	1	2	3	4
1. Meat packing	1.002030	.000752	.000658	.037681
2. Milk processing	.000286	1.002270	.005637	.000161
3. Grain grinding	.005808	.022134	1.075670	.014332
4. Other food manufacturing	.000142	.001020	.011282	1.002110
5. Primary metal goods	.000001	.000000	.000003	.000000
6. Concrete & concrete products	.000056	.000169	.000422	.000108
7. Textiles & apparel	.000002	.000002	.000015	.000001
8. Printing & engraving	.000146	.000604	.002996	.000476
9. Building supplies & equipment	.000537	.005504	.006048	.003800
10. Farm & industry equipment	.000816	.003754	.007765	.002009
11. Food stores	.000028	.000298	.000138	.000219
12. Autos, gas & durable equip. repair	.010952	.029347	.072298	.019634
13. Home furnishings	.000021	.000059	.000128	.000048
14. Eating & drinking	.000112	.000120	.000083	.000294
15. Specialty stores	.000068	.000061	.000114	.000040
16. Farm supplies & feed	.008080	.030732	.065935	.020970
17. Drug & variety	.000027	.000146	.000285	.000062
18. Dept., gen. merc., aprpl. & dry gds.	.000652	.002534	.005273	.001606
19. Other trades	.000003	.000008	.000018	.000005
20. Medical, dental & legal	.000801	.002774	.008625	.001874
21. Amusement & recreation	.000000	.000000	.000000	.000000
22. Apparel care & repair	.000100	.000016	.000033	.000146
23. Other services	.000001	.000004	.000012	.000003
24. Commercial banks	.003570	.010362	.020593	.007173
25. Real estate & insurance	.004264	.006926	.009955	.004703
26. Other lending	.001384	.005264	.011138	.003436
27. Gen. building & subcontract- ing	.000623	.000433	.003905	.000232
28. General construction	.000148	.000016	.000038	.000021
29. Farms & fisheries	.095739	.364848	.773927	.236133
30. Transportation	.003484	.073659	.033734	.025035
31. Utilities	.003847	.022024	.024146	.008711
32. Rental & lodging	.000241	.001003	.001364	.001377
Totals	1.143969	1.586843	2.142238	1.392400

Table 26. Continued

Industry producing	Direct plus indirect requirements per dollar of final demand			
	5	6	7	8
1. Meat packing	.000088	.000125	.000138	.000121
2. Milk processing	.000059	.000100	.000040	.000039
3. Grain grinding	.000017	.000033	.000024	.000023
4. Other food manufacturing	.000568	.001369	.001483	.001209
5. Primary metal goods	1.000000	.000000	.000003	.000002
6. Concrete & concrete products	.000056	1.000020	.000109	.000043
7. Textiles & apparel	.000006	.000000	1.000010	.000001
8. Printing & engraving	.001077	.000219	.002282	1.012990
9. Building supplies & equipment	.003518	.003669	.000439	.005995
10. Farm & industry equipment	.007072	.003603	.000005	.000005
11. Food stores	.000278	.000190	.000098	.000122
12. Autos, gas & durable equip. repair	.030397	.073930	.002921	.005852
13. Home furnishings	.000131	.000052	.000081	.000077
14. Eating & drinking	.000502	.001250	.000018	.000024
15. Specialty stores	.000067	.001248	.000017	.000026
16. Farm supplies & feed	.000051	.000073	.000036	.000032
17. Drug & variety	.000098	.000083	.000026	.000042
18. Dept., gen. merc., aprl. & dry gds.	.000018	.000006	.000021	.001178
19. Other trades	.003329	.001220	.000001	.000002
20. Medical, dental & legal	.002916	.002507	.000773	.001234
21. Amusement & recreation	.000000	.000000	.000000	.000002
22. Apparel care & repair	.000535	.000021	.000026	.000035
23. Other services	.000004	.000006	.000003	.001170
24. Commercial banks	.001085	.001286	.000834	.001276
25. Real estate & insurance	.003167	.006379	.003103	.003747
26. Other lending	.000291	.000046	.000144	.000166
27. Gen. building & subcontract- ing	.001428	.000093	.003628	.000249
28. General construction	.000076	.000012	.000040	.000033
29. Farms & fisheries	.000202	.000414	.000381	.000320
30. Transportation	.004472	.000180	.019727	.015326
31. Utilities	.004385	.018726	.010795	.019562
32. Rental & lodging	.007009	.000701	.003169	.003836
Totals	1.072902	1.117561	1.050375	1.074739

Table 26. Continued

Industry producing	Direct plus indirect requirements per dollar of final demand			
	9	10	11	12
1. Meat packing	.000020	.000068	.056082	.000140
2. Milk processing	.000007	.000022	.023207	.000030
3. Grain grinding	.000006	.000013	.007454	.000045
4. Other food manufacturing	.000313	.000685	.038567	.002136
5. Primary metal goods	.000000	.000000	.000000	.000000
6. Concrete & concrete products	.003534	.000012	.000029	.000018
7. Textiles & apparel	.000000	.000001	.000002	.000002
8. Printing & engraving	.002270	.000733	.005782	.001922
9. Building supplies & equipment	1.000320	.000134	.001303	.000738
10. Farm & industry equipment	.000020	1.000640	.000285	.000476
11. Food stores	.000022	.000165	1.045300	.000854
12. Autos, gas & durable equip. repair	.015937	.022494	.011918	1.144860
13. Home furnishings	.000014	.000090	.000289	.000589
14. Eating & drinking	.000016	.000014	.003339	.000085
15. Specialty stores	.000022	.000650	.000116	.000297
16. Farm supplies & feed	.000013	.000026	.009836	.000470
17. Drug & variety	.000037	.000055	.000047	.000036
18. Dept., gen. merc., appl. & dry gds.	.000004	.000010	.000225	.000017
19. Other trades	.000008	.000006	.000007	.000272
20. Medical, dental & legal	.001128	.001621	.001329	.001057
21. Amusement & recreation	.000000	.000000	.000000	.000000
22. Apparel care & repair	.000005	.000043	.000076	.000192
23. Other services	.000004	.000003	.000008	.000069
24. Commercial banks	.001390	.000726	.002050	.000734
25. Real estate & insurance	.005017	.004300	.004248	.005003
26. Other lending	.000015	.000207	.000887	.000371
27. Gen. building & subcontract- ing	.000031	.000245	.000393	.000416
28. General construction	.000002	.001607	.000069	.000064
29. Farms & fisheries	.000080	.000189	.030469	.000625
30. Transportation	.001159	.006957	.003656	.000416
31. Utilities	.004998	.006775	.013143	.011265
32. Rental & lodging	.000189	.005006	.006947	.007309
Totals	1.036581	1.053497	1.267054	1.180508

Table 26. Continued

Industry producing	Direct plus indirect requirements per dollar of final demand			
	13	14	15	16
1. Meat packing	.000061	.054252	.000118	.000951
2. Milk processing	.000025	.074601	.000044	.000115
3. Grain grinding	.000012	.009310	.000021	.016828
4. Other food manufacturing	.000443	.021286	.000730	.000568
5. Primary metal goods	.000014	.000001	.000001	.000000
6. Concrete & concrete products	.000477	.000074	.000037	.000108
7. Textiles & apparel	.000062	.000003	.000004	.000001
8. Printing & engraving	.010284	.001677	.008224	.000542
9. Building supplies & equipment	.003814	.004096	.001666	.007972
10. Farm & industry equipment	.000011	.000644	.000005	.001669
11. Food stores	.000304	.095756	.000641	.000092
12. Autos, gas & durable equip. repair	.017999	.025083	.005872	.041927
13. Home furnishings	1.000280	.000290	.000340	.000066
14. Eating & drinking	.000029	1.028580	.000026	.000031
15. Specialty stores	.000418	.000093	1.000720	.000044
16. Farm supplies & feed	.000024	.007558	.000037	1.023040
17. Drug & variety	.000093	.000144	.000118	.000059
18. Dept., gen. merc., appl. & dry gds.	.000076	.000778	.000040	.001322
19. Other trades	.000379	.001145	.001344	.000010
20. Medical, dental & legal	.002707	.004143	.003433	.001770
21. Amusement & recreation	.000000	.000000	.000000	.000000
22. Apparel care & repair	.000080	.003259	.000170	.000023
23. Other services	.000014	.000005	.000011	.000004
24. Commercial banks	.001002	.004523	.000982	.006219
25. Real estate & insurance	.005914	.008589	.005085	.004672
26. Other lending	.000437	.001633	.000873	.002862
27. Gen. building & subcontract- ing	.015771	.000850	.000946	.000224
28. General construction	.000141	.000145	.000188	.000020
29. Farms & fisheries	.000146	.068330	.000255	.194175
30. Transportation	.003254	.011751	.007601	.008235
31. Utilities	.022991	.037728	.017874	.014672
32. Rental & lodging	.009747	.015727	.021693	.001970
Totals	1.097009	1.482054	1.079099	1.330191

Table 26. Continued

Industry producing	Direct plus indirect requirements per dollar of final demand			
	17	18	19	20
1. Meat packing	.000659	.005795	.000287	.001832
2. Milk processing	.005641	.003646	.000187	.003080
3. Grain grinding	.000271	.002367	.000142	.000621
4. Other food manufacturing	.007444	.002487	.001773	.000790
5. Primary metal goods	.000009	.000001	.000002	.000002
6. Concrete & concrete products	.000070	.000042	.000076	.000050
7. Textiles & apparel	.000002	.000004	.000009	.000005
8. Printing & engraving	.018900	.009988	.001917	.002836
9. Building supplies & equipment	.000415	.001308	.002080	.000362
10. Farm & industry equipment	.000038	.000042	.000027	.000024
11. Food stores	.006084	.001082	.000329	.006102
12. Autos, gas & durable equip. repair	.001837	.004447	.029092	.001861
13. Home furnishings	.000221	.000360	.000112	.000358
14. Eating & drinking	.000041	.000110	.001715	.000338
15. Specialty stores	.000881	.000360	.010689	.001369
16. Farm supplies & feed	.000381	.000439	.005930	.000529
17. Drug & variety	1.000450	.000031	.000087	.033137
18. Dept., gen. merc., appl. & dry gds.	.000068	1.000140	.000029	.000766
19. Other trades	.000002	.000081	1.009030	.000003
20. Medical, dental & legal	.000964	.000771	.002606	1.005580
21. Amusement & recreation	.000008	.000000	.000000	.000001
22. Apparel care & repair	.000110	.000893	.000049	.001184
23. Other services	.005068	.000090	.000005	.000457
24. Commercial banks	.001169	.001403	.001846	.001409
25. Real estate & insurance	.004656	.003570	.006228	.005862
26. Other lending	.000574	.000977	.000235	.001364
27. Gen. building & subcontract- ing	.000602	.001036	.002244	.001317
28. General construction	.000110	.000199	.000050	.000195
29. Farms & fisheries	.003916	.004112	.001686	.002341
30. Transportation	.011918	.021045	.029782	.000822
31. Utilities	.014044	.018985	.015604	.022814
32. Rental & lodging	.012652	.022948	.004925	.022429
Totals	1.099205	1.108759	1.128773	1.119840

Table 26. Continued

Industry producing	Direct plus indirect requirements per dollar of final demand			
	21	22	23	24
1. Meat packing	.009690	.000207	.000167	.000151
2. Milk processing	.003753	.000038	.000038	.000141
3. Grain grinding	.001058	.000065	.000043	.000022
4. Other food manufacturing	.010747	.003639	.002295	.000432
5. Primary metal goods	.000002	.000001	.001648	.000004
6. Concrete & concrete products	.000092	.001222	.009514	.000135
7. Textiles & apparel	.000010	.000004	.000021	.000018
8. Printing & engraving	.004510	.003835	.004149	.004639
9. Building supplies & equipment	.000939	.000371	.010058	.000501
10. Farm & industry equipment	.000060	.000019	.000055	.000004
11. Food stores	.125695	.000623	.000663	.000162
12. Autos, gas & durable equip. repair	.009575	.015688	.008515	.002976
13. Home furnishings	.000949	.000347	.004124	.001914
14. Eating & drinking	.001341	.000050	.000052	.001555
15. Specialty stores	.000157	.001257	.001719	.000393
16. Farm supplies & feed	.002274	.000094	.000063	.000023
17. Drug & variety	.000111	.000127	.000064	.000052
18. Dept., gen. merc., appl. & dry gds.	.003559	.001222	.000599	.000023
19. Other trades	.002605	.000007	.000027	.000004
20. Medical, dental & legal	.002972	.003707	.001820	.001556
21. Amusement & recreation	1.000860	.000000	.001644	.000000
22. Apparel care & repair	.001330	1.006080	.002328	.000009
23. Other services	.000007	.000007	1.000010	.000006
24. Commercial banks	.001959	.001532	.000865	1.000070
25. Real estate & insurance	.010922	.008762	.007655	.002414
26. Other lending	.002476	.000853	.002289	.001527
27. Gen. building & subcontract- ing	.002571	.000987	.005322	.004514
28. General construction	.000513	.000180	.000151	.000019
29. Farms & fisheries	.006049	.000936	.000607	.000215
30. Transportation	.001129	.000315	.004662	.013987
31. Utilities	.058581	.052754	.035893	.009595
32. Rental & lodging	.059213	.020734	.015463	.000291
Totals	1.325709	1.125663	1.122523	1.047352

Table 26. Continued

Industry producing	Direct plus indirect requirements per dollar of final demand			
	25	26	27	28
1. Meat packing	.000081	.000065	.000074	.000020
2. Milk processing	.000073	.000050	.000049	.000015
3. Grain grinding	.000016	.000015	.000018	.000006
4. Other food manufacturing	.000415	.000531	.000242	.000219
5. Primary metal goods	.000000	.000000	.001014	.000003
6. Concrete & concrete products	.000010	.000009	.034808	.002403
7. Textiles & apparel	.000001	.000001	.004670	.000015
8. Printing & engraving	.004606	.005104	.001209	.000544
9. Building supplies & equipment	.000123	.000114	.105241	.018466
10. Farm & industry equipment	.000006	.000003	.000149	.002385
11. Food stores	.000252	.000211	.000214	.000051
12. Autos, gas & durable equip. repair	.011250	.002473	.014077	.038149
13. Home furnishings	.000097	.000086	.008641	.000051
14. Eating & drinking	.000930	.000521	.000275	.000150
15. Specialty stores	.001984	.003491	.000283	.000029
16. Farm supplies & feed	.000022	.000019	.000017	.000020
17. Drug & variety	.000003	.000085	.000148	.000038
18. Dept., gen. merc., appl. & dry gds.	.000014	.000016	.003766	.000014
19. Other trades	.000006	.000006	.000053	.000012
20. Medical, dental & legal	.000054	.002538	.001413	.001129
21. Amusement & recreation	.000000	.000000	.000000	.000000
22. Apparel care & repair	.000047	.000044	.000053	.000009
23. Other services	.000006	.000007	.000004	.000003
24. Commercial banks	.001170	.001083	.006600	.001003
25. Real estate & insurance	1.000710	.002132	.003153	.005419
26. Other lending	.000586	1.000710	.003199	.000031
27. Gen. building & subcontract- ing	.000265	.000243	1.180850	.003743
28. General construction	.000048	.000045	.004417	1.000020
29. Farms & fisheries	.000173	.000179	.000112	.000067
30. Transportation	.000506	.000162	.003209	.000091
31. Utilities	.011970	.010033	.008911	.003305
32. Rental & lodging	.005592	.005208	.006020	.000342
Totals	1.041016	1.035184	1.392889	1.077752

Table 26. Continued

Industry producing	Direct plus indirect requirements per dollar of final demand			
	29	30	31	32
1. Meat packing	.000372	.003690	.000059	.002672
2. Milk processing	.000548	.001707	.000058	.000883
3. Grain grinding	.078488	.000072	.000011	.000363
4. Other food manufacturing	.001077	.000602	.000199	.001400
5. Primary metal goods	.000001	.000002	.000003	.000035
6. Concrete & concrete products	.000509	.000079	.000256	.001286
7. Textiles & apparel	.000002	.000009	.000012	.000162
8. Printing & engraving	.000839	.001214	.001843	.002563
9. Building supplies & equipment	.004455	.003073	.002248	.010539
10. Farm & industry equipment	.010999	.000016	.000005	.000058
11. Food stores	.000154	.000225	.000200	.028611
12. Autos, gas & durable equip. repair	.078566	.011187	.006798	.008812
13. Home furnishings	.000132	.000124	.000574	.015273
14. Eating & drinking	.000103	.000300	.000665	.000249
15. Specialty stores	.000145	.000025	.000495	.001145
16. Farm supplies & feed	.107239	.000103	.000014	.000485
17. Drug & variety	.000310	.000022	.000045	.000289
18. Dept., gen. merc., aprl. & dry gds.	.008788	.000024	.000019	.001260
19. Other trades	.000020	.000003	.000004	.000011
20. Medical, dental & legal	.009397	.000609	.001321	.002045
21. Amusement & recreation	.000000	.000000	.000000	.000000
22. Apparel care & repair	.000038	.000054	.000039	.007707
23. Other services	.000010	.000002	.000003	.000006
24. Commercial banks	.033305	.001265	.000890	.012381
25. Real estate & insurance	.008329	.005222	.001739	.012702
26. Other lending	.018570	.000289	.000350	.040039
27. Gen. building & subcontract- ing	.000627	.002268	.003038	.041027
28. General construction	.000033	.000065	.000049	.008683
29. Farms & fisheries	1.294040	.001139	.000105	.003384
30. Transportation	.044631	1.000500	.000886	.003355
31. Utilities	.019415	.006639	1.065070	.153764
32. Rental & lodging	.001622	.006606	.004488	1.005690
Totals	1.722764	1.047135	1.091486	1.366879

Table 27. Final demand and total output with estimated output changes for a one percent increase in final demand for each sector, 1967 (thousands of dollars)

Industry producing	Final demand	Total output	Computer check, No change
1. Meat packing	19,837	21,103	21,103
2. Milk processing	17,836	18,499	18,499
3. Grain grinding	458	1,755	1,755
4. Other food manufacturing	7,292	7,972	7,972
5. Primary metal goods	4,240	4,253	4,253
6. Concrete & concrete products	446	841	841
7. Textiles & apparel	1,331	1,377	1,377
8. Printing & engraving	415	866	866
9. Building supplies & equipment	2,192	3,681	3,681
10. Farm & industry equipment	2,963	3,198	3,198
11. Food stores	11,206	12,390	12,390
12. Autos, gas & durable equip. repair	12,483	16,991	16,991
13. Home furnishings	2,524	2,700	2,700
14. Eating & drinking	3,473	3,644	3,644
15. Specialty stores	1,433	1,504	1,504
16. Farm supplies & feed	1,756	3,487	3,487
17. Drug & variety	2,144	2,379	2,379
18. Dept., gen. merc., aprl. & dry gds.	12,484	12,671	12,671
19. Other trades	1,191	1,232	1,232
20. Medical, dental & legal	6,692	7,014	7,014
21. Amusement & recreation	1,162	1,165	1,166
22. Apparel care & repair	771	850	850
23. Other services	1,808	1,825	1,825
24. Commercial banks	1,919	2,671	2,671
25. Real estate & insurance	4,807	5,593	5,593
26. Other lending	1,517	2,018	2,018
27. Gen. building & subcontracting	9,569	11,628	11,628
28. General construction	7,540	7,630	7,630
29. Farms & fisheries	5,912	19,167	19,167
30. Transportation	1,131	3,587	3,587
31. Utilities	3,763	6,634	6,634
32. Rental & lodging	3,498	4,597	4,597

Table 27. Continued

Industry producing	One percent increase in final demand by sector			
	1	2	3	4
1. Meat packing	21,302	21,103	21,103	21,106
2. Milk processing	18,499	18,678	18,499	18,499
3. Grain grinding	1,756	1,759	1,760	1,756
4. Other food manufacturing	7,972	7,972	7,972	8,045
5. Primary metal goods	4,253	4,253	4,253	4,253
6. Concrete & concrete products	841	841	841	841
7. Textiles & apparel	1,377	1,377	1,377	1,377
8. Printing & engraving	866	866	866	866
9. Building supplies & equipment	3,681	3,682	3,681	3,681
10. Farm & industry equipment	3,198	3,199	3,198	3,198
11. Food stores	12,390	12,390	12,390	12,390
12. Autos, gas & durable equip. repair	16,993	16,996	16,991	16,992
13. Home furnishings	2,700	2,700	2,700	2,700
14. Eating & drinking	3,644	3,644	3,644	3,644
15. Specialty stores	1,504	1,504	1,504	1,504
16. Farm supplies & feed	3,489	3,492	3,487	3,488
17. Drug & variety	2,379	2,379	2,379	2,379
18. Dept., gen. merc., appl. & dry gds.	12,671	12,671	12,671	12,671
19. Other trades	1,232	1,232	1,232	1,232
20. Medical, dental & legal	7,014	7,014	7,014	7,014
21. Amusement & recreation	1,166	1,166	1,166	1,166
22. Apparel care & repair	850	850	850	850
23. Other services	1,825	1,825	1,825	1,825
24. Commercial banks	2,672	2,673	2,671	2,671
25. Real estate & insurance	5,594	5,594	5,593	5,593
26. Other lending	2,018	2,019	2,018	2,018
27. Gen. building & subcontracting	11,628	11,628	11,628	11,628
28. General construction	7,630	7,630	7,630	7,630
29. Farms & fisheries	19,186	19,232	19,170	19,184
30. Transportation	3,588	3,600	3,587	3,589
31. Utilities	6,635	6,638	6,634	6,635
32. Rental & lodging	4,597	4,597	4,597	4,597

Table 27. Continued

Industry producing	One percent increase in final demand by sector			
	5	6	7	8
1. Meat packing	21,103	21,103	21,103	21,103
2. Milk processing	18,499	18,499	18,499	18,499
3. Grain grinding	1,755	1,755	1,755	1,755
4. Other food manufacturing	7,972	7,972	7,972	7,972
5. Primary metal goods	4,295	4,253	4,253	4,253
6. Concrete & concrete products	841	845	841	841
7. Textiles & apparel	1,377	1,377	1,390	1,377
8. Printing & engraving	866	866	866	870
9. Building supplies & equipment	3,681	3,681	3,681	3,681
10. Farm & industry equipment	3,198	3,198	3,198	3,198
11. Food stores	12,390	12,390	12,390	12,390
12. Autos, gas & durable equip. repair	16,992	16,991	16,991	16,991
13. Home furnishings	2,700	2,700	2,700	2,700
14. Eating & drinking	3,644	3,644	3,644	3,644
15. Specialty stores	1,504	1,504	1,504	1,504
16. Farm supplies & feed	3,487	3,487	3,487	3,487
17. Drug & variety	2,379	2,379	2,379	2,379
18. Dept., gen. merc., appl. & dry gds.	12,671	12,671	12,671	12,671
19. Other trades	1,232	1,232	1,232	1,232
20. Medical, dental & legal	7,014	7,014	7,014	7,014
21. Amusement & recreation	1,166	1,166	1,166	1,166
22. Apparel care & repair	850	850	850	850
23. Other services	1,825	1,825	1,825	1,825
24. Commercial banks	2,671	2,671	2,671	2,671
25. Real estate & insurance	5,593	5,593	5,593	5,593
26. Other lending	2,018	2,018	2,018	2,018
27. Gen. building & subcontracting	11,628	11,628	11,628	11,628
28. General construction	7,630	7,630	7,630	7,630
29. Farms & fisheries	19,167	19,167	19,167	19,167
30. Transportation	3,587	3,587	3,587	3,587
31. Utilities	6,634	6,634	6,634	6,634
32. Rental & lodging	4,597	4,597	4,597	4,597

Table 27. Continued

Industry producing	One percent increase in final demand by sector			
	9	10	11	12
1. Meat packing	21,103	21,103	21,109	21,103
2. Milk processing	18,499	18,499	18,501	18,499
3. Grain grinding	1,755	1,755	1,756	1,755
4. Other food manufacturing	7,972	7,972	7,976	7,972
5. Primary metal goods	4,253	4,253	4,253	4,253
6. Concrete & concrete products	841	841	841	841
7. Textiles & apparel	1,377	1,377	1,377	1,377
8. Printing & engraving	866	866	867	866
9. Building supplies & equipment	3,703	3,681	3,681	3,681
10. Farm & industry equipment	3,198	3,228	3,198	3,198
11. Food stores	12,390	12,390	12,507	12,390
12. Autos, gas & durable equip. repair	16,991	16,991	16,992	17,134
13. Home furnishings	2,700	2,700	2,700	2,700
14. Eating & drinking	3,644	3,644	3,644	3,644
15. Specialty stores	1,504	1,504	1,504	1,504
16. Farm supplies & feed	3,487	3,487	3,488	3,487
17. Drug & variety	2,379	2,379	2,379	2,379
18. Dept., gen. merc., appl. & dry gds.	12,671	12,671	12,671	12,671
19. Other trades	1,232	1,232	1,232	1,232
20. Medical, dental & legal	7,014	7,014	7,014	7,014
21. Amusement & recreation	1,166	1,166	1,166	1,166
22. Apparel care & repair	850	850	850	850
23. Other services	1,825	1,825	1,825	1,825
24. Commercial banks	2,671	2,671	2,671	2,671
25. Real estate & insurance	5,593	5,593	5,593	5,594
26. Other lending	2,018	2,018	2,018	2,018
27. Gen. building & subcontracting	11,628	11,628	11,628	11,628
28. General construction	7,630	7,630	7,630	7,630
29. Farms & fisheries	19,167	19,167	19,170	19,167
30. Transportation	3,587	3,587	3,587	3,587
31. Utilities	6,634	6,634	6,635	6,635
32. Rental & lodging	4,597	4,597	4,598	4,598

Table 27. Continued

Industry producing	One percent increase in final demand by sector			
	13	14	15	16
1. Meat packing	21,103	21,105	21,103	21,103
2. Milk processing	18,499	18,501	18,499	18,499
3. Grain grinding	1,755	1,755	1,755	1,755
4. Other food manufacturing	7,972	7,973	7,972	7,972
5. Primary metal goods	4,253	4,253	4,253	4,253
6. Concrete & concrete products	841	841	841	841
7. Textiles & apparel	1,377	1,377	1,377	1,377
8. Printing & engraving	866	866	866	866
9. Building supplies & equipment	3,681	3,681	3,681	3,681
10. Farm & industry equipment	3,198	3,198	3,198	3,198
11. Food stores	12,390	12,393	12,390	12,390
12. Autos, gas & durable equip. repair	16,991	16,992	16,991	16,991
13. Home furnishings	2,725	2,700	2,700	2,700
14. Eating & drinking	3,644	3,680	3,644	3,644
15. Specialty stores	1,504	1,504	1,518	1,504
16. Farm supplies & feed	3,487	3,487	3,487	3,505
17. Drug & variety	2,379	2,379	2,379	2,379
18. Dept., gen. merc., aprpl. & dry gds.	12,671	12,671	12,671	12,671
19. Other trades	1,232	1,232	1,232	1,232
20. Medical, dental & legal	7,014	7,014	7,014	7,014
21. Amusement & recreation	1,166	1,166	1,166	1,166
22. Apparel care & repair	850	850	850	850
23. Other services	1,825	1,825	1,825	1,825
24. Commercial banks	2,671	2,671	2,671	2,671
25. Real estate & insurance	5,503	5,593	5,503	5,593
26. Other lending	2,018	2,018	2,018	2,018
27. Gen. building & subcontracting	11,628	11,628	11,628	11,628
28. General construction	7,630	7,630	7,630	7,630
29. Farms & fisheries	19,167	19,169	19,167	19,170
30. Transportation	3,587	3,587	3,587	3,587
31. Utilities	6,634	6,635	6,634	6,634
32. Rental & lodging	4,597	4,598	4,597	4,597

Table 27. Continued

Industry producing	One percent increase in final demand by sector			
	17	18	19	20
1. Meat packing	21,103	21,104	21,103	21,103
2. Milk processing	18,499	18,499	18,499	18,499
3. Grain grinding	1,755	1,755	1,755	1,755
4. Other food manufacturing	7,972	7,972	7,972	7,972
5. Primary metal goods	4,253	4,253	4,253	4,253
6. Concrete & concrete products	841	841	841	841
7. Textiles & apparel	1,377	1,377	1,377	1,377
8. Printing & engraving	866	867	866	866
9. Building supplies & equipment	3,681	3,681	3,681	3,681
10. Farm & industry equipment	3,198	3,198	3,198	3,198
11. Food stores	12,390	12,390	12,390	12,390
12. Autos, gas & durable equip. repair	16,991	16,991	16,991	16,991
13. Home furnishings	2,700	2,700	2,700	2,700
14. Eating & drinking	3,644	3,644	3,644	3,644
15. Specialty stores	1,504	1,504	1,504	1,504
16. Farm supplies & feed	3,487	3,487	3,487	3,487
17. Drug & variety	2,400	2,379	2,379	2,381
18. Dept., gen. merc., appl. & dry gds.	12,671	12,796	12,671	12,671
19. Other trades	1,232	1,232	1,244	1,232
20. Medical, dental & legal	7,014	7,014	7,014	7,081
21. Amusement & recreation	1,166	1,166	1,166	1,166
22. Apparel care & repair	850	850	850	850
23. Other services	1,825	1,825	1,825	1,825
24. Commercial banks	2,671	2,671	2,671	2,671
25. Real estate & insurance	5,593	5,593	5,593	5,593
26. Other lending	2,018	2,018	2,018	2,018
27. Gen. building & subcontracting	11,628	11,628	11,628	11,628
28. General construction	7,630	7,630	7,630	7,630
29. Farms & fisheries	19,167	19,167	19,167	19,167
30. Transportation	3,587	3,590	3,587	3,587
31. Utilities	6,634	6,636	6,634	6,635
32. Rental & lodging	4,597	4,600	4,597	4,598

Table 27. Continued

Industry producing	One percent increase in final demand by sector			
	21	22	23	24
1. Meat packing	21,103	21,103	21,103	21,103
2. Milk processing	18,499	18,499	18,499	18,499
3. Grain grinding	1,755	1,755	1,755	1,755
4. Other food manufacturing	7,972	7,972	7,972	7,972
5. Primary metal goods	4,253	4,253	4,253	4,253
6. Concrete & concrete products	841	841	841	841
7. Textiles & apparel	1,377	1,377	1,377	1,377
8. Printing & engraving	866	866	866	866
9. Building supplies & equipment	3,681	3,681	3,681	3,681
10. Farm & industry equipment	3,198	3,198	3,198	3,198
11. Food stores	12,391	12,390	12,390	12,390
12. Autos, gas & durable equip. repair	16,991	16,991	16,991	16,991
13. Home furnishings	2,700	2,700	2,700	2,700
14. Eating & drinking	3,644	3,644	3,644	3,644
15. Specialty stores	1,504	1,504	1,504	1,504
16. Farm supplies & feed	3,487	3,487	3,487	3,487
17. Drug & variety	2,379	2,379	2,379	2,379
18. Dept., gen. merc., aprpl. & dry gds.	12,671	12,671	12,671	12,671
19. Other trades	1,232	1,232	1,232	1,232
20. Medical, dental & legal	7,014	7,014	7,014	7,014
21. Amusement & recreation	1,178	1,166	1,166	1,166
22. Apparel care & repair	850	858	850	850
23. Other services	1,825	1,825	1,843	1,825
24. Commercial banks	2,671	2,671	2,671	2,690
25. Real estate & insurance	5,593	5,593	5,593	5,593
26. Other lending	2,018	2,018	2,018	2,018
27. Gen. building & subcontracting	11,628	11,628	11,628	11,628
28. General construction	7,630	7,630	7,630	7,630
29. Farms & fisheries	19,167	19,167	19,167	19,167
30. Transportation	3,587	3,587	3,587	3,587
31. Utilities	6,635	6,634	6,635	6,634
32. Rental & lodging	4,598	4,597	4,597	4,597

Table 27. Continued

Industry producing	One percent increase in final demand by sector			
	25	26	27	28
1. Meat packing	21,103	21,103	21,103	21,103
2. Milk processing	18,499	18,499	18,499	18,499
3. Grain grinding	1,755	1,755	1,755	1,755
4. Other food manufacturing	7,972	7,972	7,972	7,972
5. Primary metal goods	4,253	4,253	4,253	4,253
6. Concrete & concrete products	841	841	844	841
7. Textiles & apparel	1,377	1,377	1,377	1,377
8. Printing & engraving	866	866	866	866
9. Building supplies & equipment	3,681	3,681	3,691	3,682
10. Farm & industry equipment	3,198	3,198	3,198	3,198
11. Food stores	12,390	12,390	12,390	12,390
12. Autos, gas & durable equip. repair	16,991	16,991	16,992	16,994
13. Home furnishings	2,700	2,700	2,701	2,700
14. Eating & drinking	3,644	3,644	3,644	3,644
15. Specialty stores	1,504	1,504	1,504	1,504
16. Farm supplies & feed	3,487	3,487	3,487	3,487
17. Drug & variety	2,379	2,379	2,379	2,379
18. Dept., gen. merc., appl. & dry gds.	12,671	12,671	12,671	12,671
19. Other trades	1,232	1,232	1,232	1,232
20. Medical, dental & legal	7,014	7,014	7,014	7,014
21. Amusement & recreation	1,166	1,166	1,166	1,166
22. Apparel care & repair	850	850	850	850
23. Other services	1,825	1,825	1,825	1,825
24. Commercial banks	2,671	2,671	2,672	2,671
25. Real estate & insurance	5,641	5,593	5,593	5,593
26. Other lending	2,018	2,033	2,018	2,018
27. Gen. building & subcontracting	11,628	11,628	11,741	11,628
28. General construction	7,630	7,630	7,630	7,705
29. Farms & fisheries	19,167	19,167	19,167	19,167
30. Transportation	3,587	3,587	3,587	3,587
31. Utilities	6,634	6,634	6,635	6,634
32. Rental & lodging	4,597	4,597	4,598	4,597

Table 27. Continued

Industry producing	One percent increase in final demand by sector			
	29	30	31	32
1. Meat packing	21,103	21,103	21,103	21,103
2. Milk processing	18,499	18,499	18,499	18,499
3. Grain grinding	1,760	1,755	1,755	1,755
4. Other food manufacturing	7,972	7,972	7,972	7,972
5. Primary metal goods	4,253	4,253	4,253	4,253
6. Concrete & concrete products	841	841	841	841
7. Textiles & apparel	1,377	1,377	1,377	1,377
8. Printing & engraving	866	866	866	866
9. Building supplies & equipment	3,681	3,681	3,681	3,681
10. Farm & industry equipment	3,199	3,198	3,198	3,198
11. Food stores	12,390	12,390	12,390	12,391
12. Autos, gas & durable equip. repair	16,995	16,991	16,991	16,991
13. Home furnishings	2,700	2,700	2,700	2,700
14. Eating & drinking	3,644	3,644	3,644	3,644
15. Specialty stores	1,504	1,504	1,504	1,504
16. Farm supplies & feed	3,493	3,487	3,487	3,487
17. Drug & variety	2,379	2,379	2,379	2,379
18. Dept., gen. merc., aprpl. & dry gds.	12,671	12,671	12,671	12,671
19. Other trades	1,232	1,232	1,232	1,232
20. Medical, dental & legal	7,014	7,014	7,014	7,014
21. Amusement & recreation	1,166	1,166	1,166	1,166
22. Apparel care & repair	850	850	850	850
23. Other services	1,825	1,825	1,825	1,825
24. Commercial banks	2,673	2,671	2,671	2,671
25. Real estate & insurance	5,593	5,593	5,593	5,593
26. Other lending	2,019	2,018	2,018	2,019
27. Gen. building & subcontracting	11,628	11,628	11,628	11,629
28. General construction	7,630	7,630	7,630	7,630
29. Farms & fisheries	19,243	19,167	19,167	19,167
30. Transportation	3,590	3,598	3,587	3,587
31. Utilities	6,635	6,634	6,674	6,639
32. Rental & lodging	4,597	4,597	4,597	4,632

VITA

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Master of Science

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